THE TWILIGHT OF THE EARLY HELLADICS

A STUDY OF THE DISTURBANCES

IN EAST-CENTRAL AND SOUTHERN GREECE

TOWARDS THE END OF THE EARLY BRONZE AGE

BY

JEANNETTE FORSÉN

PAUL ÅSTRÖMS FÖRLAG

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Abstract

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The excavations in the 1950s of the Argive site Lerna in the Peloponnese have been of utmost importance for the interpretation of the Early Bronze Age in Greece. At this site the appearance of numerous novel features within the architecture, in artefacts and in burial customs has been used as an argument to support the theory that a new ethnic group arrived in the Argolido-Corinthia destroying almost every site in their way at the end of EHII. As some sites were not destroyed until the end of EHIII, a second wave of foreigners was invoked as an explanation.

This study is an investigation of the evidence on which these alleged invasions and/ or immigrations have been based. There is not much original data in the study as a large majority of the material has been previously published. However, this material has been compiled for the first time in a more comprehensive way, and various chapters deal with the tangible evidence of the destruction of individual sites and the allegedly "new" and foreign features found in east-central and southern Greece towards the end of EH.

It is argued that EH sites had been destroyed entirely or partially throughout the centuries with no clear "horizon" of destructions at any one period. The appearance of apsidal houses, the "Lefkandi I" assemblage, Light-on-Dark ware, Fine Gray-burnished ware, Finely Incised and/or Impressed ware, terracotta anchors, stone shaft-hole hammer-axes, tumuli and intramural burials does not require an explanation by invasion. On the contrary, these features reached the area gradually during EHII-MH from different geographical directions.

The "coming of the Greeks" seems still to influence the scholarly world and too much emphasis has been put on discontinuities, rather than on continuities. A more nuanced picture of the end of EH is developing, where there is no room for any invasions or waves of immigrations, but where soil erosion may have played an important role in the lives of the last Early Helladics.

Key words: Early Bronze Age, east-central Greece, Peloponnese, Aegean archaeology, Greek prehistory, destruction, invasion, infiltration, apsidal building, Lefkandi, Light-on-Dark, Fine Gray-burnished, Finely Incised and Impressed, terracotta anchor, shaft-hole hammer-axe, tumulus, intramural burial, soil erosion.

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This study would never have been initiated if Professor Paul Åström had not encouraged me to begin collecting data about Early Bronze Age destructions in Jordan. Eventually the geographical scope changed from the Middle East to Greece. Still, the study period and general topic did not change, as is apparent from the title of the thesis.

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Introduction

The word "twilight" in the title of this study is used in a purely chronological sense denoting the end of the Early Helladic period. The historical outline of the third millennium BC in Greece was until the 1960s, possibly oversimplified. Until then all the excavation results seemed clearcut and supported the theory conceived by Blegen that an invasion into Greece occurred at the end of the EHIII period, thereby introducing the MH period. However, through his work at Lerna in the Argolid, Caskey concluded that an "overwhelming invasion by foreigners" reached the Argolid and Corinthia at the end of the EHII period, sacking Ayios Kosmas on the Attic coast on their way and at the same time causing the population along the whole eastern coast of central Greece to decrease (1971, 782, 786-788, 806).

Caskey believed that the major destructions at the end of EHII in the Argolid and Corinthia had been more or less synchronous, but admitted that absolute uniformity should not be expected; thus a couple of sites in Argolido-Corinthia showed a somewhat different sequence to the one at Lerna. At more than one site, distinct breaks were allegedly seen also at the end of the EHIII period; therefore Caskey supposed that a new wave of settlers arrived at that time (1960, 301-302; 1971, 786-787, 807; 1973a, 99; 1973b, 136; 1986, 25).

The purpose of this study is to make as objective an analysis as possible of the evidence on which Caskey's alleged invasion is based, at the same time expanding the study area to include the entire Peloponnese, besides east-central Greece. The questions which will be highlighted in the study are the following: (1) How contemporaneous are the destructions at the end of the EHII period? (2) Do they have to be contemporary in order to have a common denominator? (3) Above all, was there an invasion at the end of EHII? (4) From where came the alleged foreigners - one or several directions? (5) Are the destructions at the end of the EHIII period synchronous? (6) To what degree has Caskey's theory impressed and influenced later scholarly work?

The chapter on the history of research gives a background to the complex of questions presented above. After an initial discussion of how the chronological framework was created for the EH period, I will tentatively identify several different theories concerning how to interpret the archaeological data from the end of EH. These theories, which can be seen as either diffusionistic, invasionistic or evolutionistic, are given the following names: the "eastern theory", the "northern theory", the "composite the-

ories", the "autochthonous theory" and finally, the "natural disaster theory". This is admittedly a rather simplistic approach and some scholars may resent being grouped into one or the other "theory", but I find this a rewarding way of presenting the data on what has become a quite complicated issue, as the material otherwise would be hard to digest. The nature of the transition between EHIII and MH is not dealt with in any detail in this work, as it would expand the study into unworkable proportions; but for the sake of clarity, I end the history of research with a short sketch of this transitional period.

After supplying a background to the research, some methodological problems pertaining to the questions under discussion are raised and discussed. Initially I give a very short historiographical description of theoretical work dealing with the interpretations of cultural change. Subsequently the two sets of evidence used by Caskey, to prove that an invasion of foreigners entered Argolido-Corinthia at the end of the EHII period and then again at the end of EHIII, are commented on. At first the stratigraphical data and problems in the interpretation of these data are mentioned. For example, how is the term "destruction layer" defined? Can it be shown that later excavators have pressed their material, e.g. over-interpreted minor ash-layers, in order to conform to Caskey's theory?

In the later part of the methodological chapter, I discuss interpretational problems concerning the material culture data, which is the second and major type of data Caskey used as evidence for his theory. I will also divert very briefly to archaeological surveys, a comparatively new source of information concerning prehistoric living conditions and possible changes in these. Data about prehistoric settlement patterns are in the process of being collected in the study area, due to an ever-increasing interest in intensive survey work. Methodological aspects of this type of information will be discussed further in the section dealing with survey results and settlement patterns.

After having given the methodological frame to the study, we will turn to the material which is collected in the catalogue of sites. As the scope of this book is the EHII-EHIII period in the Peloponnese and east-central Greece, the catalogue of sites includes all excavated settlement sites in this area which have produced EHII and/or EHIII material (frequently also MH material). In the catalogue I have for each site discussed the stratigraphy, the occurrences and dates of possible destruction layers (where the opinions of the excavator are followed by comments of later scholars, including myself), and finally a documentation of every so-called new feature and its respective date.

In the chapter following the catalogue, the stratigraphical evidence presented in the catalogue in connection with each site will be assembled in order to discern any chronological or geographical patterns. We will initially consider the stratigraphical evidence in the form of "destruction layers" and then negative stratigraphical evidence, i.e. cases where there seems to be a discontinuity or hiatus in the occupation of a site because material from a certain period is lacking. Subsequently the excavated settlement sites which first of all lack destruction layers, and secondly have produced material spanning the EHII-EHIII-MH period, are collected and commented on. Finally different survey results, both extensive and intensive, are examined for information on how the settlement patterns changed towards the end of the EH period.

The fifth chapter is divided into four sections, each devoted to one of the features in the material culture, which Caskey and others after him have used in order to prove invasionistic or diffusionistic theories. These sections deal with architectural changes, changes in the ceramic repertoire or in the tool kit, and changes in burial customs. The purpose here is to see if these features really can be described as "new" and "intrusive" in our study area and, if they are, from which direction and at what time they spread into the study area.

Caskey referred to some degree also to racial, ecological and zoological evidence in his invasionistic theory. Similar types of scientific information pertaining to the end of the EH period are discussed in Chapter Six, which concludes the data dealt with in this study. At the end, the results from the chapters will be assembled in the concluding remarks, hopefully in order to answer the questions presented above and perhaps to create a more nuanced picture of the close of the Early Helladic period.

1. History of research

The purpose of this chapter is to illuminate how the historical interpretation of the disturbances at the end of the Early Bronze Age in Greece has changed over the last 70 years. In order to get a background to the complex of problems, we will first look at how the chronological framework came into being with pottery studies made during the last decades. We will also discover how important Blegen was for the creation of a *historical* outline of the EH period, maintained until Caskey somewhat changed it in 1960. Caskey's paper in 1960 was a milestone in that, through the better-defined EHII and EHIII periods found at Lerna, he could change some of the dates given previously to destruction layers found in Argolido-Corinthia, thereby also changing Blegen's historical interpretion according to which the destructions happened at the end of the EHIII period (see Blegen 1928a, 221).

From 1960 we are able to follow the different explanatory theories concerning the turbulent later part of the EH period, which I have ventured to designate in the following way: the "eastern theory", the "northern theory", the "composite theories", the "autochthonous theory" and finally the "natural disaster theory". After the presentation of these mostly invasionistic, diffusionistic or evolutionistic theories, a short characterization of the transitional period between EHIII and MH will be given.

Defining the problems

Early in this century Wace and Blegen (1919) published an article with a chronological framework for the pre-Mycenaean mainland based on pottery finds from Orchomenos (Bulle 1907), Argos (Vollgraff 1906), Tiryns (Müller 1913 and Karo 1915), Ayia Marina (Sotiriades 1912), Chaeronea (Wace and Thompson 1912) and from three sites near Corinth: Korakou, Gonia and Yiriza. Wace and Blegen introduced the name "Early Helladic" for the period when, among other wares, Glazed ware (also called Urfirnis) was used, and "Middle Helladic" for the period when Minyan and Matt-painted wares were used.

Then, in 1921, Blegen, classifying the pottery according to surface treatment and studying its sequence in the EH stratum at Korakou, ventured to divide the period into three chronological subdivisions, EHI-III (Blegen 1921, 2-3, 14). Furthermore, the stratigraphy at Korakou showed that the EHIII settlement was destroyed, and that it was a complete cultural break

as hardly any EH elements survived the destruction (Blegen 1921, 122, 124).

The tripartite scheme proposed by Blegen was further elaborated by the findings at Zygouries in 1921-1922 based on both typological and stratigraphical data. EHI was characterized by polished ware (slipped or unslipped), incised decorations and red glazed ware. EHII was characterized by glazed ware with a good quality of glaze (often black), Yellow Mottled ware and some early Dark-on-Light ware. EHIII was characterized by degenerated glazed ware, Dark-on-Light ware, a diminishing amount of Yellow Mottled ware and much Plain ware (Blegen 1928a, 100-101, 217-218). The appearance of Minyan and Matt-painted wares inaugurated the MH period here as well as at Korakou, after a destruction of the EH settlement (Blegen 1928a, 125-133, 216). That Blegen was well aware of the importance of the stratigraphical sequence of each region and that they did not have to be exactly synchronized is evident, because he remarked that EHIII partly overlapped with MMI (1928a, 219 n.1).

While Blegen classified the pottery according to the colour of its clay and the surface treatment, Kunze in 1934, publishing the EH pottery found at Orchomenos, built a chronological chain according to changes in the pottery shapes. This was further developed by Goldman. It was especially her work at Eutresis in 1924-27 which confirmed the chronological scheme proposed by Blegen in 1921. Here was a well-stratified site with 4-4.5 m of EH remains, where Goldman could apply the terminology EHI-III to the three main phases which she had defined through changes in pottery fabric, in pottery shapes and in architecture (Goldman 1931, 227-231). Numerous excavations made during 1922-1938 confirmed the historical outline Blegen had proposed,[1] and the break after EHIII was corroborated at such widely separated sites as Asine (excavated in 1922-30), Berbati (exc. 1937), Ayios Kosmas (exc. 1930-31), Eutresis (exc. 1924-27), Kirrha (exc. 1937-38) and Asea (exc. 1936-38).

Müller, on the other hand, when publishing the Urfirnis pottery found at Tiryns, divided it into one older and one younger group. Concerning the younger so-called "Gemusterte Urfirnisware" or "patterned group" he presented the startling observation that it appeared fully developed, without any pre-stages in either shapes or patterns; and, what was more, that there was no stratigraphical break between EHIII and MH at Tiryns (Müller 1930, 204; 1938, 89-90). These results were largely ignored by the

1. This outline was still accepted as late as the 1950s by e.g. Schachermeyr (1954, 1452-1453) and Mellaart (1958, 11).

scholarly world at the time. Then, in 1952-58, excavations were led by J. Caskey at Lerna and the results changed the historical outline held until then. At Lerna there was a clear cultural break between EHII and EHIII, not between EHIII and MH. This confirmed Müller's observations about the Urfirnis ware, where he had seen the patterned type as without prestages in the EHII period. Now this type could be explained as intrusive during EHIII.

Lerna III (EHII) was the time when large rectangular buildings such as House BG and the "House of the Tiles" were built, when the site was fortified, and when the pottery consisted of glazed and Yellow Mottled ware, later also of Plain ware. The repertory of shapes included sauceboats, askoi, bowls/saucers, two-handled jars, and pithoi with impressed plastic bands (Caskey 1960, 289-293).[2]

Lerna IV (EHIII) was the period following the burning of the "House of the Tiles". Now there was no fortification; the houses were simple, many of apsidal or oblong shape. New pottery shapes were introduced such as tankards, one-handled cups, two-handled bowls and ouzo-cups. Some of these were made on the potter's wheel. There are no sauceboats, no saucers and no beaked jugs in Lerna IV; they have completely disappeared. New wares such as Dark-on-Light, Dark Burnished and some early Gray Minyan ware appeared, besides new objects such as terracotta anchors and bored hammer-axes (Caskey 1960, 293-297).

The results from Lerna created a discrepancy of ca. 150 years between the destruction at Lerna and most other sites. For Caskey this seemed ludicrous and accordingly he revised the date for many of these destructions as he now had the means to do, by comparing it with a much-refined chronological sequence at Lerna. Until this time the subdivisions EHI-III were not adequately correlated, as various excavators used the same terms for different material assemblages and chronological periods (Kunze 1934, 11; Blegen 1951, 21; Wace 1954, 81).

In 1960 Caskey published a new analysis of previously excavated data in which he proposed that Tiryns, Asine, Zygouries, Ayios Kosmas and possibly Corinth were destroyed at the same time as Lerna. Stratigraphical data for this period were considered to be inadequate at Asea, Prosymna and Mycenae. Korakou and Eutresis apparently lasted through the disturbances at the end of the EHII period only to be destroyed at the end of EHIII instead. Caskey proposed in short: (a) that a foreign invasion

2. An excellent, but tentative, summary of the present state of our knowledge about the EHII period is published by Wiencke (1989, 495-509).

brought an end to EHII in Argolido-Corinthia; (b) that the destructions were more or less contemporaneous; (c) that the people of EHIII were closely related to the Middle Helladics; and (d) that a second impulse or wave from abroad introduced the MH period[3] (1960, 299-302).

In 1973 Caskey elaborated on the historical outline he had presented in 1960. He still believed that most parts of the Argolid were destroyed at the end of the EHII period, but had to admit that absolute uniformity did not exist even in this region (in the light of the published material from Berbati). He thought that other communities outside Argolis were spared, supposedly because they came to terms with the invaders or because they were not reached by them. At the end of EHIII a second wave of related groups reached Argolis and settled peacefully at the sites which had been invaded at the end of EHII. But in other regions, e.g. Eutresis and Korakou, a destruction resulted as a larger amount of the original population inhabited these sites (Caskey 1973a, 99; 1973b, 136) and consequently fought for their independence.

The last time Caskey dwelt upon what he called the "notable break" between EHII and EHIII at Lerna was in a lecture held in 1979. Here he said that the break at Lerna was seen "in architecture, in population and burial customs, to some extent in fauna and flora, in types of certain tools and of pottery", but it was not a question of total extinction; some people survived and with them some vestiges of the EHII period (1986, 25).

The results from Lerna, which so far are published mainly in preliminary reports, have had a great impact on later archaeological work in Greece. The excavators of Kirrha, for instance, changed the date for the destruction of that site from EHIII to EHII (van Effenterre's 1975, 35-42) once the Lerna sequence was known. Excavations published since Caskey wrote in 1960 and 1973 seem to have repeatedly corroborated a sequence where a noticeable break is seen between EHII/III. At the following sites a break at the end of EHII has been inferred: at Tiryns in the Lower Town, area H (Gercke, Gercke and Hiesel 1975) and probe F (Gercke and Hiesel 1971), in the "Unterburg" (Siedentopf 1971; Kilian 1983) and "Oberburg"

3. The "second wave" theory have several supporters, e.g. Buck 1964, 280; 1966, 205; Vermeule 1964, 59; Hanschmann and Milojcic 1976, 184; and Sakellariou 1980, 161, 257-259. But there are also several opponents: e.g. Wünsche believed that there was only one break, at the end of the EHII period, and he said that it was appropriate to let the MH period start after the EHII destructions, thus renaming EHIII as MHI (Wünsche 1977, 94-95). Some years previously, Howell had renamed EHIII as the "Protominyan" period because it had, in his opinion, little in common with the previous EHII period (1973, 94). Hope Simpson and Dickinson definitely opposed a "second wave" theory (1979, 374-375).

(Kilian 1986); moreover at Synoro (Döhl 1973); Ayia Marina, Spetses (Theochares 1971); Perachora/Vouliagmeni (Fossey 1973), Phlius (Biers 1969), Ayios Dhimitrios (Zachos 1987), Voidokoilia (Korres 1990), Akovitika (Themelis 1970), Ayios Stephanos (Taylour 1972), Lithares (Tzavella-Evjen 1985) and to some extent also at Manika (Sampson 1985).

If the ash-layers at different sites excavated before 1960 were too dependent on the results from Korakou, one might suspect that the results from Lerna have had the same effect on the publications since 1960. Suggestions to this effect have been made by Walter and Felten (1981, 105) who proposed that the old excavation reports from Zygouries, Asine and Korakou should be considered accurate once again, as their own results from Kolonna on Aigina had shown that there was no sharp break between EHII and EHIII. However, contrary to this view, Wünsche concluded from his studies of the pottery from Aigina that the break was clear also at Kolonna between EHII and EHIII (1977, 75).

Two English-speaking scholars, Haley (1928, 142) and Blegen (1928b, 150, 154), proposed already in 1928 that the changes seen (at this time the cultural break was believed to have been between EHIII and MH) were linked with the arrival of the first Indo-Europeans from Asia Minor on the Greek mainland. They reached this conclusion as a mapping of pre-Greek place names (with supposed origins in SW Asia Minor) on the mainland, in Crete and in the Cyclades, closely matched the distribution of EH, EM and EC sites. But Caskey pushed back the alleged entry of these Indo-Europeans by suggesting that the pre-Greek place names seemed to belong to the EHII period (1960, 302). Concerning the geographical origin of these newcomers, he suggested at one point that this could be found in the east (as the EHIII painted wares had parallels in ECIII pottery) and perhaps also in the north, reflected supposedly in the apsidal houses (1971, 788). Later he proposed that the disturbances at the end of EHII in the Argolid and some other regions were due to Indo-European people coming westward, possibly from southwestern Anatolia (Caskey 1973b, 139; 1986, 25). This time he gave no importance to the apsidal house plan as an indication of place of origin for the newcomers.

The question of when the Indo-European language appeared in Greece has been widely debated throughout the years and became a popular topic especially in the late 1980s. Renfrew, for instance, suggested that the Indo-Europeans arrived with the knowledge of farming from an Anatolian homeland already at the beginning of the Neolithic period, i.e. before 6500 B.C. (1987, 145-177, esp. 160, fig.7.7). But Mallory supports the hypothesis of an Indo-European origin in the Pontic-Caspian steppe area,

and of continual movements of people from the steppe into SE Europe during the 4th-3rd millennia B.C. as the ancestors of the Greeks (1989, 178-181, 243, 264). A disturbing fact is that while the archaeologists tend to say that the archaeological data are not enough to show the "coming" of the Indo-Europeans, but that the linguistic evidence supports such an arrival, the linguists sometimes argue the other way around. We end up with a circular argumentation and no clear evidence of the "coming of the Indo-Europeans or Greeks" at all, neither archaeological nor linguistic (see Wyatt Jr. 1970, 89-111; Morpurgo Davies 1986, 93-123, esp. 111-114). Following Morris, who rejects altogether the idea that "Indo-Europeans" exist other than as a group of languages (1990, 63-64), I will not pursue this issue any further.

It has been suggested that it was the English-speaking scholarly world who supported the view that an invasion came from the east, from Anatolia via the Cyclades, while the German-speaking scholars supported the hypothesis that an invasion from the north had taken place (Wünsche 1977, 93-94 n.258). At the same time Wünsche, himself a German scholar, supported the "eastern theory", which consequently seems to disprove this suggestion.

The Eastern Theory

The "eastern theory" encompasses the following features: Dark-on-Light and Light-on-Dark pottery, Gray Minyan ware and the "Lefkandi I" pottery assemblage. Important ingredients in the pottery assemblage of EHIII date are the Dark-on-Light and Light-on-Dark wares. Several studies have been made of these wares. While one scholar, regarding the Dark-on-Light variety, reached the conclusion that new features, possibly coming from Anatolia via the northern Cyclades, merged with the old local tradition (Donovan 1961, 128, 132, 144), another scholar says that the older local traditions in no way influenced the new Pattern-painted pottery technique (Wünsche 1977, 59, 66-67, 75, 78). Recently Rutter remarked that the influence from ECII wares on the Dark-on-Light pottery is clear, but that elements from the previous EHII Pattern-painted tradition are also incorporated (1988, 85).

Contemporary with the Dark-on-Light ware is the so-called Ayia Marina or Light-on-Dark ware. It has been suggested that the origin of this Light-on-Dark ware was either the conversion of Peloponnesian painted ware influenced by EC incised, white-filled pottery (Donovan 1961, 131, 144), or painted and incised traditions from the eastern Aegean

islands (Emporio on Chios and Thermi on Lesbos) and from western Anatolia (Rutter 1988, 85, 89 fig.21). The Light-on-Dark ware has been seen as restricted to central Greece, i.e. Boiotia and Phocis, constituting a northern pottery zone (French 1968, 60-61; 1972, 20-22), while the Dark-on-Light ware in the Peloponnese constituted an equivalent pottery zone in southern Greece.

The Gray Minyan ware was originally thought typical of the MH period, but with the excavations at Lerna it became evident that it occurred already in the EHIII period (Caskey 1960, 296-297).[4] A comprehensive study of the EHIII predecessor of Gray Minyan ware, termed Fine Gray-burnished ware, was published in 1983 by Rutter (1983a, 327-353). He proposed that the ancestry of this ware was a synthesis of central Greek elements with an intrusive western Anatolian ceramic assemblage. There was thus nothing but an *indirect* connection between the contemporary appearance of gray burnished wares in western Anatolia and Greece. French had hypothesized, 17 years previously, that it was the *idea* of making a gray ware that came from NW Anatolia to the Greek mainland (1966b, 109).

The pottery from Phase 1 at Lefkandi was first studied by French and was dated by him to early EHIII. He also said that this pottery had "strong resemblances" to pottery from western Anatolia at Troy II and III-V (French in Popham and Sackett 1968, 8). In a detailed analysis of the origin of EHIII pottery, Rutter collapsed the two ceramic assemblages found at Lefkandi and Kastri on Syros into the "Lefkandi I" assemblage. Much controversy has taken place regarding the date of this assemblage, even though no one denies the Anatolian origin of many of the pottery shapes. Actually, it has been proposed that five of the six principal shapes in the "Lefkandi I" assemblage are of western Anatolian origin (Rutter 1979, 6, 8).

Opinions vary about the way the diffusion from western Anatolia came about. French, for instance, suggested that "much more came across to

4. Numerous scholars in the past have argued either that the Gray Minyan ware was a western Anatolian import (Forsdyke 1914, 136-137, 152-155; Goldman 1931, 231-232; Frödin and Persson 1938, 433-434; Mellaart 1958, 15-21, but he retracted his previous views in 1969, 172-173), or that it had an indigenous central and southern Greek origin (Wace and Thompson 1912, 21, 251-252; Childe 1915, 204, 207; Säflund 1965, 159; French 1972, 23 and 1973, 51-54; Howell 1973, 79, 94). Adams refrains from suggesting a place of origin, but suggests instead that Gray Minyan was produced at several special centres and then traded among different peoples. Thus, the appearance of this ware cannot, in his opinion, be used as proof of a population movement (1968, 201-202).

Greece from Anatolia in EHIII than has been suspected" (1972, 23)[5], while Renfrew proposed that "small groups of immigrants may have travelled from NW Anatolia" to settle down e.g. at Lefkandi on Euboia (1972a, 477). Rutter thought that it was more than just casual trade which resulted in the "Lefkandi I" assemblage ending up on Euboia, but at the same time he did not rule out that the change in pottery shapes could be the result of a new technology, meaning the use of the fast wheel (1979, 8). Rutter also introduced the concept of a ceramic "migration" for the appearance of this pottery assemblage in Greece, and in a later publication he explained that this was because he could not interpret the diffusion in human terms: did *people* actually move or could it be the result of an ideological diffusion (1983a, 347 n.63)?

Barber has suggested that a substantial number of intruders came into the Cyclades from Anatolia at the end of the ECII period, bringing with them new pottery shapes (tankards and depas) and wares (slipped and burnished ware) of Cilician origin, new metal types and perhaps the apsidal house form (1987, 29, 93-94, 138-139).[6] Another theory was proposed by Doumas, according to which people from Poliochni on Lemnos and Thermi on Lesbos (which constituted an insular civilization in the north Aegean eqvivalent to one in the south) were forced to leave their homes.[7] Subsequently these islanders moved southwards where they were responsible for the building of the "hill-fort sites", Kastri on Syros, Kynthos on Delos and Panormos on Naxos. But this meant that they were expanding into the south Aegean area, with the result that they were expelled from the hill-forts. Repercussions of these struggles might be seen in the destruction of Lerna III, where the pottery of the succeeding period showed strong resemblances with the Kastri group according to Doumas (1988, 21-29).

Wiencke recently proposed that the change toward a "high level of social and economic complexity", which she suggested had occurred during the later part of the EHII period in Argolis (possibly also in the rest of the Peloponnese and central Greece), was stimulated by the appearance of the people, probably with Anatolian connections, who were responsible for the "Lefkandi I" assemblage. Wiencke refrains from making any sug-

5. Some years earlier he had proposed that a different "influence" had appeared, not necessarily an ethnic change (1968, 172).

6. This "historical outline" by Barber has been criticized for being "unbalanced" and based on assumptions which were not critically scrutinized (Davis 1990, 498).

7. Supposedly they were forced to leave by the Anatolians, but this is not explicitly stated by Doumas.

gestions concerning the relationship between those people and the succeeding EHIII people, but supports some kind of invasionistic theory to explain what she calls "the drastic cultural break between EHII and EHIII" (1989, 495, 499, 508-509 n.90).

The Northern Theory

This theory comprises the following features: apsidal houses, Finely Incised and/or Impressed ware, and the "Kurgan tradition". As I have already mentioned, Caskey at one stage proposed that the apsidal house construction was an influence which possibly came from the north with the newcomers to Lerna IV. While Howell suggested that this new feature reached Greece through the NW, ultimately originating in central Europe and the Balkans (1973, 91-93, 95), Hammond actually recorded an increased transhumant pastoralism, including the use of light-weight apsidal constructions, in central Albania and Macedonia during this period (1976, 113).

Another feature which has been seen as of northern origin is the so-called Finely Incised and/or Impressed ware of EHIII date.[8] Maran suggested that this particular ware had its origin in the Cetina culture along the Dalmatian coast. Furthermore, he explicitly proposed that an immigration of people from the northwestern Balkan area reached Greece at the transition EHII/III, but he has to admit that we cannot say whether immigrations at this time were the reason for the cultural change or the result of it (1987, 77-85). Let us also briefly mention Siedentopf who, in connection with excavations at Tiryns and a destruction layer found between the EHII and EHIII material in the "Unterburg", said that Pattern-painted ware of EHIII date originated in the north, coming to Tiryns with the conquerors of that site (1971, 85).

The identification of the "Kurgan tradition" originated with Gimbutas, who suggested that "Kurgan IV" people were responsible for the destruction of the urban civilization in Greece at the end of the EHII period.[9] She allegedly saw their presence in the Aegean in the R-tumuli on Leucas, and

8. This ware was studied for the first time in detail by Rutter (1982, 459-488).

9. Quite a few scholars have followed this theory, e.g. Piggott 1965, 79-82, but not in 1983, 61; Hammond 1976, 113; Holmberg 1978, 7, 9; Sakellariou 1980, 90-113, 159-160, 251-256; 1986, 127-128, 135-136 and Konsola 1981, 149. Sakellariou proposed that Kurgan and Balkan elements merged somewhere between Ukraina and the Greek peninsula. After this, the new culture reached Greece in two waves, one at the transition EHII/EHIII and the other at the transition EHIII/MH (1980, 161, 257-259; 1986, 125-128, 135-137).

recently suggested that these tumuli were influenced indirectly by the Maikop culture in the North Pontic area through the Baden-Vucedol culture (a "Kurganized" central European culture) in NW Yugoslavia (Gimbutas 1956, 12, 56-98; 1973, 133, 135; 1985, 200).[10] Her view has become more diversified through time. There is no more talk of the Aegean civilization succumbing to the Kurgan tradition (1977, 309-310); she speaks instead of small groups of people (as it happens, Indo-Europeans) coming into Greece from several directions, e.g. from the Adriatic Sea, possibly reaching the Peloponnese via Leucas (1985, 197, 199-200).

In a roundabout manner Hood explained the westward movement of Anatolians across the Aegean, at the end of EHII or during EHIII, as the result of Kurgan expansion from southern Russia into the Balkans (1973, 61). We will have reason to return to Hood's theory in the following section.

Composite Theories

One should not fall victim to the "Kurganomania", said Schachermeyr, who for decades proposed that what he called a "Metallschock" from Anatolia reached the mainland in EHII, via the Cyclades, where for instance Kastri on Syros was settled by Anatolian metallurgists,[11] and via Euboia, where Lefkandi was founded by the Anatolians. By a "Metallschock" was meant the supposedly clear influence Anatolian metal vessels had on many of the EH pottery shapes.[12] He suggested also that some infiltration, supposedly reflected in the pottery repertoire, occurred into southern Greece from the north in the EHII period, but he left open the question whether the destructions at the end of EHII were due to occasional raids of pillage or to an invasion of foreign people (Schachermeyr 1954, 1423; 1955, 155 fig.40, 182-187, 193; 1976, 189-191).

One aspect of another composite theory has already been mentioned, under the heading "the eastern theory" in connection with the ancestry of Gray Minyan ware. We saw then that Rutter proposed that western Ana-

10. Other traits were also suggested to have a Kurgan origin, e.g. the horse, wheeled wagons, Corded ware, stone mace-heads and battle-axes (Gimbutas 1970, 157-186).

11. This has been shown to be correct, as metallurgical tests on the Kastri material have resulted in the suggestion that this settlement was the "fortified stronghold of Anatolian invaders and refugees probably from Troy" (Gale, Stos-Gale, Davis 1985, 157).

12. For another opinion see French (1968, 137-140), who rejects Schachermeyr's theory not only on grounds of his eclecticism and disregard of chronology, but also because of "improbability and lack of evidence".

tolian features merged with elements which were present in central Greece, especially Boiotia. In developing this theory he suggested that once this synthesis had taken place, a migration of a large number of people from central Greece, again especially from Boiotia, reached the Peloponnese, bringing with them new ceramics, new ideas about architecture and settlement patterns, which all explain the changes observed between EHII and EHIII (Rutter 1983a, 349-350).

Hiller partly supports Rutter's theory, but elaborates it further. He acknowledges the role of central Greece during the EHII as a melting pot of local pottery shapes and features coming from the east, i.e. Anatolia, as Rutter had proposed, but he also adds "northern" elements to this melting pot, i.e. apsidal house forms, terracotta anchors and shaft-hole hammer-axes of stone (1982a, 43). This process, when northern and eastern features merged into the EHIII culture, was supposedly preceded by the first arrival of Indo-Europeans in northern Greece at the beginning of the EBA. It was after this intrusion that the "northern" elements are seen for the first time, such as apsidal houses, terracotta anchors and shaft-hole hammer-axes of stone (Hiller 1982a, 45-46).[13]

We have already seen several suggestions to the effect that the apsidal house form was introduced into Greece from the north. Contrary to this, Hood argued that it came with a movement of people from Anatolia who also brought other changes such as the potter's wheel, the fashion of making shaft-hole tools and weapons, anchor ornaments, clay seals and monochrome burnished ware (Hood 1986, 31, 33, 37, 41, 43, 48, 50-51, 62). He goes on by saying that at the same time, another movement carrying tumulus burials, Corded ware, hollow-based arrowheads and arrow-shaft straighteners appears to have been coming south into Greece from Europe (1986, 55-57, 62).

The Autochthonous Theory

Renfrew has said on several occasions that the marked change and discontinuity seen between the EHII and EHIII periods (his "Korakou" and

13. In another paper, also published in 1982, Hiller seems to downplay the conclusions drawn above regarding the Indo-Europeanization of Greece. The northern Greek culture, primarily in Macedonia and Thrace at the beginning and middle of the EBA, supposedly reached central Greece through cultural contacts and is later found in Lerna IV through elements such as apsidal houses, shaft-hole hammer-axes and terracotta anchors. This time Hiller seems to regard the Macedonian and Thracian culture as "non-Indo-European" (1982b, 193-195).

"Tiryns" cultures) may well be explained as a local evolution once more research has been done in southern and central Greece (1972a, 114-116, 477; 1973, 269). This view is indirectly supported by French, who saw a "straightforward ceramic development" from the Neolithic to the Mycenaean period in Greece (1973, 53).

The Natural Disaster Theory

According to a study presented in 1971, Bell speculated whether a drought, which was "widespread, severe and prolonged, lasting for several decades and occurring more or less simultaneously over the entire eastern Mediterranean and adjacent lands", could explain the numerous disasters, e.g. the burning of the "House of the Tiles" at Lerna, and decline of the EHII culture in Greece (1971, 1-3, 5-6). In 1979, Hope Simpson and Dickinson proposed that a combination of epidemics or prolonged crop-failure and the "coming of the Greeks" moving southwards from Thessaly and Macedonia were responsible for the radical change between EHII and EHIII (1979, 374). Later, Dickinson said that "something of a disaster occurred, not an invading horde of mindless wreckers but some kind of natural disaster or, perhaps, systems collapse" (1982, 133), supposedly evidenced by a gap during EHIII in the stratigraphical sequence in Laconia and Messenia.

The Transition from EHIII to MH

At Lerna there was no stratigraphical break between EHIII and MH. Apsidal and roughly rectangular houses continued to be built in the same way as before and there were no signs of burnt layers or any other disturbances (Caskey 1960, 298). Still Caskey suggested that a second wave of immigrants, this time coming from both the north and east and inaugurating the MH period, had settled peacefully at Lerna (1973b, 136, 139-140; 1986, 25), bringing "new" features such as Matt-painted ware, a multitude of intramural burials, and a "marked influx of imported objects": e.g. Dark burnished and incised flasks, duck vases from the Cyclades, and MMIa pots from Crete (Caskey 1960, 298-299, 303). Later, Caskey proposed that many of the incised flasks and, above all, the *type* of flask was foreign, but that local imitations were made of them at a later stage (Caskey 1986, 23).

The outline made above by Caskey has been modified by Zerner, who managed to isolate a truly transitional EHIII-MH phase at Lerna called transitional IV-V, during which Matt-painted ware[14] appeared for the first

time (1978, 191-192). Meanwhile both types of EHIII Pattern-painted wares, as well as tankards and pyxides, lived on, only to disappear in the following phase. In traditional terminology the transitional phase IV-V corresponds to the beginning of the MH period, and it was also identified at Lefkandi (Phase 4) by Zerner (1978, 192, 195).

During the following period (Lerna VA), the true MH period started and with it a significant Cycladic and Minoan influence. One of the "new" wares that appeared during Lerna VA is the Dark burnished and incised flask, mentioned above (see Caskey 1957, 150, pl.40:d-f). Zerner has on several occasions proposed that these flasks could be of Cycladic origin (1978, 180-186; 1986, 70). More recently she suggested that they actually are indigenous to the mainland, but that the exact production centre remains unknown (Zerner in paper read at the Second International Prehistoric Colloquium in Athens, September 1987).

Numerous similarities are shown to exist between the EHIII and the MH period. For instance, the Fine Gray-burnished ware continues as Gray Minyan ware, and a vast majority of EHIII vessel forms survived into Lerna VA (Rutter 1986, 29-32, 40-56). Many types of objects span Lerna IV and V, e.g. the shaft-hole hammer-axes of stone, the arrowheads and the arrow-shaft straighteners (Banks 1967, 685-700). Zerner was of the opinion that there was a continuous development from EHIII to MH, and that the changes which did take place were probably due to increased trade and contact with other areas (1978, 196-197). Rutter has suggested that central Greece was the source of the stimulus which started the transition from EHIII to MH (1986, 32).

14. Concerning the Matt-painted ware, origins as disparate as central Greek Neolithic, Anatolia or central Europe have been suggested (see Wünsche 1977, 112 n.250 for further references). Wünsche, however, managed to isolate what he called a "Dichter Stil" ("compact style") which supposedly was the first stage of Matt-painted ware and which developed on Aigina, inspired by the EHIII and ECIII Pattern-painted wares at the end of the EHIII period (1977, 88-91, pl.19).

2. Methodology

Caskey can be seen as a typical representative of the (by now rather traditional and old-fashioned) migrationistic or invasionistic schools of thought, according to which a cultural break was explained by invoking the arrival of a new group of people. Beginning in the 1960s archaeologists became less inclined to think in terms of invasions and migrations, or for that matter diffusions, where innovations or influences supposedly were diffused from one group to another. Alternative models were constructed to explain culture change, e.g. by Renfrew who in 1972 introduced the concept of the "multiplier effect" according to which the most important changes, in this case concerning the creation of the Aegean civilization, were explained to have essentially local origins (1972a, 15-44, 476-504); he presented by and large an evolutionary theory where economic and environmental factors or subsystems[15] were emphasized.

But, as Cherry remarked in 1984, "a concentration on processes indigenous to the Aegean was welcome a decade ago, in order to break the back of the old diffusionistic orthodoxies, but the new danger of becoming blinkered from all data outside the region has now become acute" (1984b, 27). That this danger was real could be seen in Renfrew's work where, at the same time as he admitted the marked change and discontinuity between the EHII and EHIII periods, he stated that this phenomenon could be explained as a local evolution once more research had been done in southern and central Greece (1972a, 114-116, 477; 1973, 269).

Let me in this context also quote Piggott, who warned that "generalizations can become wholly unreal paper transactions and a waste of intellectual effort [unless] the potential fallibility of excavation reports [are recognized]" and, he continues, "technically able work in the field combined with equally good publications is by no means universal in archaeology.[16] A report must be critically assessed before the information it purports to present can be accepted and trusted" (1991, 110). Throughout this study I have aimed at the type of source criticism Piggott called for, in order to establish whether or not Caskey's main theory is one of those generalizations Piggott warned about.

15. A term which he borrowed from Binford (1965, 203), who suggested that culture should be viewed as a system composed of subsystems which could vary independently of each other.

16. This is an obvious understatement in the case of the study periods and area under consideration here.

As in most theories of change, Caskey used stratigraphical evidence, e.g. destruction layers and periods of abandonment, as well as evidence of material culture, where abrupt changes were documented in architecture, burial customs, certain types of tools and the pottery repertoire, to support his invasionistic hypothesis. To a lesser extent he also referred to racial and botanical-zoological evidence (Caskey 1960, 289-297; 1986, 9-25).

When analyzing the stratigraphical data, there are some methodological observations to make. First of all, the term "destruction layer" is problematic because the excavators' usage and definition of this term vary considerably. Fire is easily recognized in the stratigraphical record, but is ambiguous to interpret, because it may be either deliberate or accidental in origin. Caskey was of course well aware that most sites now and then suffer from limited accidental fires; therefore he asked for caution in the interpretation of ash-layers, particularly when only small areas had been excavated (1960, 301). In order to come to terms with this methodological problem, I have in each individual case evaluated how substantial the purported destruction layer really was. Is it correct to talk about a destruction layer at all? Occasionally it has been possible to correlate the extent of the individual destruction layers with the total area of the excavated EH remains. Through this approach to the data, we will see if there is a tendency among later excavators to press their material in order to fit Caskey's hypothesis.

Considered by itself, the presence of a destruction layer does not say anything about the agent behind such a layer. It could still be accidental, and occasionally natural causes such as floods or earthquakes have been suggested to lie behind destruction layers found within the study area.

One aspect of Caskey's invasionistic theory, which needs some further comments, was that he thought the destructions happened at "about the same time" in Argolido-Corinthia, and that it was only with "an heroic stretch of the imagination" that one could picture the invaders to have sacked some sites and then maintained themselves in the area for 150 years or so before they burned down other sites in the same region (1960, 301; 1971, 785-787). But, as we have seen above, Caskey (1973a, 99), modified his view of this assumed synchronization between the destruction layers at the end of the EHII period, because the excavation results from Berbati in the Argolid showed a definite break at the end of EHIII and not at the end of EHII.

Incidentally I think that Caskey's theory of contemporaneous destruction layers was misconceived. Even if it were possible to establish that

destruction layers are contemporary[17] I find it hard to accept that this would be a prerequisite, because I do not think it unlikely that an infiltration of foreign people would eventually join forces with their new neighbours against some other neighbouring villages with the result that destruction layers occurred at altogether different times in a limited region. Another plausible expectation is that these foreigners arrived peacefully and that no destruction layers would result at all.

Nevertheless, with the aid of more detailed analytical papers, primarily dealing with pottery material from Lerna in the Argolid, I have tentatively dated the individual destruction layers documented in the study area with the aim of finding possible chronological or geographical patterns, at the same time taking into consideration Caskey's assumed "second wave" at the end of the EHIII period. Two sets of data, unfortunately incommensurable, have resulted: those sites which I have been able to correlate with the refined stratigraphy at Lerna, where EHII and EHIII has been subdivided into four and three ceramic phases respectively, and those which can only be dated in broader terms to EHII or EHIII.

Another aspect of the stratigraphical record is that some sites have exhibited possible lacunae in the stratigraphy, which have been interpreted as a hiatus in the occupation of those particular sites. Such an interpretation rests on negative evidence, i.e. material datable to a certain period has not been found. In this connection it is especially important to note that the EHIII period has been defined as a "low-visibility phase", meaning that it is of relatively short duration and that the material culture defining this period is easily misidentified or overlooked (see Rutter 1983d, 138-139). Thus, we might suspect at the outset that the number of sites which have been seen as abandoned during EHIII is exaggerated. This last methodological problem leads us automatically into the "new" field of archaeological work, which was not considered in the syntheses written by Caskey, namely surface surveys.

The concentration nowadays on surface surveys, which is largely a result of pioneering work in the 1950s by Willey (1953) on prehistoric settlement patterns in Peru, and which to a great extent influenced the "New Archaeology" of the 1960s, has had a vast impact also on modern archaeology in Greece. By now almost every region in the study area has been encompassed by intensive survey work. Several methodological problems

17. Snodgrass has pointed out that even the best dated of pottery series cannot make a distinction between one day and 10 years (1987, 41) and, needless to say, the distinctions for the end of the EHII period, where the whole period is estimated to have lasted 500-550 years (Rutter 1988, 73), are much less accurate than that.

pertaining exclusively to the question of how to interpret survey results, both extensive and intensive, are discussed in greater detail in the last section of the fourth chapter.

In order to support an invasionistic theory, Caskey used a fair number of features found in Lerna IV as evidence of being of foreign origin. These features are the ones that will be scrutinized in the fifth chapter, and all of them (except two which are defined in more recent pottery analyses) emanates from the original hypothesis conceived by Caskey. The features in question are: apsidal buildings, the "Lefkandi I" assemblage, the Dark-on-Light and Light-on-Dark Pattern-painted pottery, Fine Gray-burnished ware, Finely Incised and/or Impressed ware, terracotta anchors, stone shaft-hole hammer-axes of stone, tumuli and intramural burials.

Sometimes the appearance of a particular feature, e.g. a type of pottery, has in itself been used as evidence of a population change. However, sceptical voices would argue that it is enough for the "idea"[18] to travel from one region to another to explain a seemingly abrupt change in the pottery repertoire. I do not think this is true in our case, because if a complicated technological procedure is needed to make a new type of pottery (as in the case of the Fine Gray-burnished ware) I would argue that some sort of population movement is implied.

Overall, I believe that in order to interpret the archaeological data as being the result of an "overwhelming invasion", notable breaks ought to be seen synchronously in architecture, in artefacts and in burial habits. A destruction layer is not a prerequisite, but can be taken as a sign of a turbulent era if many are found which are more or less synchronous. If abrupt changes are seen in only one or two of the aspects referred to e.g. in architecture and burial customs, these have to be interpreted in another way, e.g. as signs of trade, small numbers of newcomers or, the diffusion of an "idea".

Some of the features enumerated above, in regard to Caskey's hypothesis, were believed in the past to be exclusively marks of the MH period, but are now known to be of either EHIII or MH date. A side effect of this discovery has been that we are sliding into the MH period too, when considering whether a specific feature is of EHIII or MH date. To treat the MH period in general is not the purpose of this study, but for the sake of clarity the MH occurrences of what were "new" features in the EHII or EHIII

18. French suggested that the "idea" of making Gray Minyan ware travelled from Anatolia to the Greek mainland (1966b, 109) and Rutter talked about the possibility of an "ideological diffusion" which could explain the appearance of the "Lefkandi I" assemblage in Greece (1983a, 347 n.63).

period have been mentioned in the accompanying figures, to show the tendencies in the development of these features.

An example of the type of problem referred to above is that the EHIII forerunner of Gray Minyan ware has just begun to be recognized for what it is, i.e. of EHIII date. This means that we very rarely can exclude the possibility that a site, which in the past has been considered settled during the MH period due to the presence of Gray Minyan ware, actually was settled in EHIII instead (possibly continuing into MH). But this problem cannot be solved without restudying all previously excavated Gray Minyan pottery, which would be no small feat.

Other features, besides the ones mentioned above, have at times been considered to signify the arrival of new people in mainland Greece during EHIII: e.g. Corded ware, the true horse (*Equus caballus*), or shaft-tombs (also termed catacomb-tombs). The appearances in the study area, during the end of EH, of Corded ware and the horse are too infrequent, I think, to suggest any kind of population movement. To date, Corded ware (one sherd) has been found only at Eutresis (Goldman 1931, 123) in the study area; and the horse, which Gejvall suggested might have come to Lerna during EHIII (1969, 58), was said not to be earlier than MH by Caskey (1986, 15). I know of only two instances of EH horses in the area and they are recorded at Thebes (unpublished, see Fossey 1988, 419 n.49) and at Tiryns (see Pullen 1992, 48 n.37).

EH shaft-tombs are admittedly more often found in the study area and are included in the study, albeit under the heading of extramural tombs, whenever they can be properly dated, e.g. at Manika on Euboia and at ancient Corinth in the Peloponnese.[19] This type of tomb has a vertical shaft dug into the earth or rock, with side niches for the interments at the bottom. Gimbutas considered shaft-tombs to be of Aegean origin, referring to EC tombs (1956, 80, 92; 1973, 133-134), whereas Müller reversed the direction of influence by suggesting a north Pontic (Kurgan) origin (1989, 4-5, 35). Sapouna-Sakellarakis, who has excavated shaft-tombs at Manika on Euboia, concluded that this tomb type was not of Cycladic origin, but she refrained from suggesting an ultimate place of origin (1987, 261). The date of a shaft-tomb found at Athens has now been changed from EHIII-MH to Late (Final) Neolithic (Immerwahr 1982, 62). This fact indicates that the shaft-tomb was known on the mainland from very early times and that it may be superfluous to look for a foreign origin.

19. For comparanda on shaft-tombs, see Sapouna-Sakellarakis (1987, 256-264).

A note on terminology

A fact which has led to some confusion concerning the Early Helladic period is the call by some scholars for different terminologies distinguishing chronological and cultural data. Renfrew, for instance, created a scheme where the archaeological material was divided into "cultures", and the Early Bronze Age in Greece was named after sites which, in turn, were placed in a broad chronological framework (using the terms EB1, EB2 and EB3) supposedly applicable to the Aegean as a whole. Meanwhile he did not question the use of the term Helladic in a geographical sense, but saw difficulties in using, for instance, the term EHII in both a cultural and a chronological sense, as it was not excluded that EHII, as a well-defined cultural assemblage at one site, could to some degree be contemporary with EHIII at another site, which seemed "nonsense" to him. He also drew attention to the possibility that an altogether different cultural assemblage separated the EHII culture from the EHIII, and he asked what should then be done - should one use fractional designations (1972a, 54-55, 196-197)?

Several scholars have objected to Renfrew's use of "cultures" since, for the mainland, they are identical with the chronological periods; i.e. the cultural groups are defined by the material assemblage typical of each period (Coleman 1980, 64-65; Pullen 1985, 64). Therefore nothing is solved by using the terms "Eutresis culture", "Korakou culture" and "Tiryns culture" instead of EHI, EHII and EHIII as Renfrew suggested.

An old criticism of the numbered sequence is the ease with which contemporaneity between adjacent sequences is assumed even though it does not exist (Kunze 1934, 11; Blegen 1951, 21; Caskey 1960, 299-300; Renfrew 1980, 56-57). Despite this drawback the numbered sequence was defended by Caskey, mainly because the scholars could not agree on which new terminology to use, but at the same time he said that we must remember that chronological terms do not have to be coterminous (Caskey 1978, 488-491).

Concerning the demand that terms used to describe material culture and those used for chronological designations should be kept separate, Caskey used the same term for both the chronological period and the material culture, as he had defined three stages of material assemblages corresponding to three successive strata at Lerna, which subsequently were correlated with the stratigraphy at Eutresis in Boiotia (Caskey 1960, 299-300). Thanks to the fairly well defined material assemblages at Lerna and Eutresis we have a geographical area, stretching from the Spercheus valley southward and westward comprising central and southern Greece,

which constitutes a unity where the different sites can be *broadly correlated* with each other.[20] This means that a chronological framework exists which allows events in different regions to be compared with each other, so that we can see that a given event occurred earlier in one region than in the other.[21]

Consequently, I consider the distinction between the descriptions of material culture and chronology superfluous for the study area in question and will therefore use the established terminology EHII, EHIII and MH, meaning *both* a chronological period and a specific material assemblage as defined by Caskey and Goldman at Lerna and Eutresis (later elaborated by many other scholars). Whenever a retardation of a period at one site or overlapping of two typological or chronological groups is suspected, for whatever reason, this is mentioned in the study.

New data filling the gaps in the archaeological record are added to the established chronological framework in the way in which the designation of a local group name is made for "Lefkandi I", denoting a distinctive group of ceramic material which deviates from that at Lerna. I think that such adjustments to the established terminology in this way are logical (following Barber 1987, 25). My attitude towards the terminology is admittedly a conservative one, but I feel, as Caskey did (1973a, 99-100), that the introduction of new terms in this case only makes things unnecessarily confusing. Throughout this study I deal with the relative chronology, using the terms EHII, EHIII and MH. I have only occasionally had reason to comment on absolute dates, e.g. in the case of the tumulus at Lerna (see Catalogue No.A:1).

20. The two key sites in Thessaly, Pefkakia and Argissa, have tentatively been synchronized with central and southern Greece by Maran (1986, 28 fig.6) and the EHII relationship between Pefkakia and the south has been considered by Weisshaar (1989, 142). However, it would carry us too far to include northern Greece in this study.

21. This is not absolutely true, though, because there do exist questionable instances of the type "which came first, the chicken or the egg?". For instance, in the case of the Finely Incised and/or Impressed ware whose appearance could imply that EHIII at Korakou and Olympia predated EHIII at Lerna or the other way around, it could be that EHIII at Lerna began a little earlier than EHIII at Korakou and Olympia (see Rutter 1982, 488).

3. Catalogue of sites

Included in this catalogue are primarily excavated settlement sites, but also some cave and burial sites, which have produced material datable to the EHII and/or EHIII period (occasionally continuing into the MH period). At some sites EH material is said to have been found in an excavation, but the subphasing of the EH material has only been given to pottery picked up on the surface at these sites. Occasionally a tentative date has been given to pottery material by this author, drawing on published photos, drawings, or possibly a verbal description of the pottery. Sites with EH material, but where the subphasings cannot be worked out,are not included in the catalogue.

The study area (Fig.1) includes the following districts in the Peloponnese and the east-central area of Greece: Argolid including the island of Spetses, Corinthia, Achaia, Elis, Arcadia, Messenia, Laconia, Attica including the Megarid and the island of Aigina, Boiotia, Euboia and Phocis. I will now explain the different rubrics used in the catalogue.

Geographical setting: this heading does not seem to need any further comment.

Excavated: whenever possible I have indicated the year(s) when the EH material was found.

Reference(s): the principal references dealing with the EH material are given. For fuller bibliographical references see: Syriopoulos 1964, 1968; Leekley and Noyes 1976; Hope Simpson and Dickinson 1979; Leekley and Efstratiou 1980; Foley 1988 (for Argolid); Fossey 1988 (for Boiotia).

Study periods represented: of primary concern is EHII and EHIII material, but whenever a site has produced MH material in addition to EH material this is indicated. Sites settled for the first time during the MH period are not included in the catalogue.

Presence of a "destruction" layer(s): Yes, Yes? or No. The usage of quotation marks indicates that the term "destruction" is used whenever the excavator of a site has used it in print. In a couple of instances I consider the evidence of a destruction layer inconclusive and think that the excavator may have pressed the material. In those cases I have put a question mark after the affirmative answer. Occasionally I have altogether opposed the excavator's use of this term and, when such is the case, the reasons why I disagree are clearly stated under this heading.

Extent of the "destruction" layer (related to the excavated area): whenever possible the extent of the destruction layer has been correlated with the total area of the excavated EH settlement.

Dating of the "destruction" layer: two sets of incommensurable chronological data are dealt with here, i.e. sites and dates which I have tentatively been able to correlate with the stratigraphy at Lerna in the Argolid, and those which are not.

Apsidal buildings: this is the first of many features which are seen as foreign and intrusive, and consequently are used to show that a cultural change occurred within the study area towards the end of the EH period.

"New" features within the ceramic repertory: there are four so-called "new" features under this heading, discussed at length in Chapter 5.2.

Terracotta anchors: anchor-shaped objects made of terracotta, about 5-10 cm in size.

Shaft-hole hammer-axes of stone: another special tool which has been used as evidence that a cultural change occurred between the EHII and the EHIII periods.

Tumulus: this usually implies a burial mound, but I have tentatively identified a special type termed a "ritual tumulus", which is not a burial mound *per se*.

Intramural burials, or **burials**: intramural burials, where the tomb is found within the settlement area, are among the supposedly new features occurring after EHII. Whenever both intramural and extramural burials, or burials which cannot be referred to either of these categories, are found I have used the sole heading of **burials**.

Other possible changes: this heading is used mainly in connection with Lerna, which is so far the best-studied site included in the catalogue.

General comments: the final rubric in the catalogue is used for more general remarks.

Lerna - Argolid (A:1)

Geographical setting: A low artificial mound, made up almost entirely of debris from earlier settlements, 180 x 160 meters in size and ca. 5.5 meters above the neighbouring plain. It is located on the western shore of the Bay of Argos. The site was estimated to have been located a few hundred

meters from the sea during the maximum transgression around 2500 B.C. (Zangger 1991b, 7 fig.5, 9), i.e. during the EHII period.

Excavated: 1952-58.

References: Caskey 1954, 1955, 1956, 1957, 1958, 1959, 1966a, 1968; Heath 1958; Banks 1967; Gejvall 1969; Wiencke 1969, 1970; Angel 1971; Blackburn 1970; Caskey and Blackburn 1977; Zerner 1978; Runnels 1985; Wiencke 1989.

Study periods represented: EHII (Lerna III), EHIII (Lerna IV), MH (Lerna V). Lerna III and IV have each been divided into four architectural subphases, A-D, based on the stratigraphy (Gejvall 1969, iii). The architectural subphases of Lerna III:A-D correspond to four pottery subphases, A-D, according to Wiencke (1987, 273):

(architecture)	(pottery)
Lerna III:A	Lerna III:A
Lerna III:B	Lerna III:B
Lerna III:C	Lerna III:C
Lerna III:D	Lerna III:D

Four architectural phases of Lerna IV have been divided into three ceramic phases (Rutter 1982, 461 n.6):

(architecture)	(pottery)
Lerna IV:A	Lerna IV:1
Lerna IV:B	Lerna IV:2
Lerna IV:C	Lerna IV:3
Lerna IV:D	Lerna IV:3

Zerner divided the early MH period into three subphases based on the stratified pottery, i.e. transitional IV-V, early Lerna VA and later Lerna VA (1978, 191).

Wünsche, while comparing the Pattern-painted EHIII ware from Lerna with that from Kolonna, reached the conclusion that the earlier patterns, which he had defined at Kolonna, were lacking at Lerna. Consequently, he suggested that Lerna had experienced an occupational "hiatus" at the beginning of Lerna IV (1977, 75-76). Wünsche's conclusion was founded on pottery studies alone and not on stratigraphical grounds. An actual comparison between the stratigraphical sequences at Tiryns and Lerna was made by Weisshaar, who thereby reached the same conclusion as Wünsche, i.e. that there was a "hiatus" at Lerna after the destruction of the "House of the Tiles". This "hiatus" at Lerna was seen as contemporary with

phase 9 at Tiryns and could, according to Weisshaar, somehow have a connection with the construction of the tumulus (1982, 462-463 fig.78).

Rutter, on the other hand, has refuted the suggestion about a hiatus at Lerna on the following grounds:

> 1) the ceramic types of EHIII date found during phase 9 at Tiryns, the so-called "Übergangsphase", are all to be found in Lerna IV:1;
>
> 2) the first true EHIII levels at Tiryns (phases 10-13) produced pottery equivalent typologically to phase 1 (later), phase 2 (early) or phase 3 pottery of Lerna IV, i.e. the earliest identifiable EHIII levels at Tiryns post-date the beginning of Lerna IV (Rutter 1983a, 354-355).

Presence of a "destruction" layer: Yes.

Extent of the "destruction" layer related to the excavated area: About 2400 m^2 or one-seventh of the mound's surface was examined (Gejvall 1969, ii; Caskey and Blackburn 1977, 5). The "House of the Tiles", 12 meters wide and 25 meters long or 300m^2 in size, had walls standing to a height of ca. 0.7 m, and all around them was burnt debris reaching the same level (Caskey 1954, 23-24). At places there was even more than 1 m of burnt debris from the "House of the Tiles" (Caskey 1957, 153).

The lack of contemporary buildings, which burned at the same time as the "House of the Tiles", taken together with the construction of a tumulus, was explained by Weisshaar to be the result of a *ritual* burning of the palace, thus not necessarily connected with hostile invaders (1983, 354). It is admittedly odd that no architectural remains of the same date as the "House of the Tiles" were found at Lerna, but I think that this might be explained by the fact that only one-seventh of the total settlement area was exposed (moreover, it is not known if the same level was reached over the entire excavated area).

Dating of the "destruction" layer: As noted above, no other buildings were found at the site, which succumbed in the same fire as the "House of the Tiles" dated to Lerna III:D, and on the E and S sides of this building there were broad open spaces at the time of the fire (see Caskey 1956, 164). The basic stratigraphic framework for the Lerna III pottery (phases A-D) constructed by Caskey has been confirmed in the final pottery analysis (Wiencke 1987, 273-274), but the corpus of the Lerna III pottery remains unpublished, which explains our fragmentary knowledge of the material. It has been said that four, or maybe eight, complete sauceboats and about 50 small saucers or bowls were found in Room XI of the "House of the Tiles" (Wiencke 1989, 505).

Apsidal buildings: Lerna IV has been divided into four architectural phases, A-D (Caskey 1966a, 145-151; Gejvall 1969, iii). House A1, which was the first building of EHIII date, was grouped together with houses A2 and A3 by Caskey as no separate strata could be distinguished between them. A1 is an apsidal building of wattle-and-daub technique, oriented E-W and about 12 x 7 m in size. A1, situated next to the tumulus and probably isolated from other contemporary buildings, could imply that it had a special importance. A1 lasted 1-15 years, then it was taken down, and from then on the houses were more solidly built with stone socles and mudbrick superstructures. Almost rectangular houses were also built from now on. House A2, built where A1 once stood, was much smaller but sturdier, and consisted of two or three rooms; of House A3 only a right-angle corner was exposed (Caskey 1966a, 145-147, fig.1). During the second phase of Lerna IV both apsidal and rectangular houses were built, but in the third and fourth phases most houses were apsidal (Caskey 1966a, 147 fig.2, 148 fig.3, 149 fig.4).

The picture drawn above by Caskey has been slightly modified recently by Banks, according to whom the area of the tumulus, gradually during Lerna IV:2-3, was covered with houses: not only small and large apsidal houses, but also trapezoidal structures, a small megaron and at least one D-shaped building. In the later stages of Lerna IV, the proliferation of apsidal houses suggested to Banks that closely related groups inhabited the site (1989, 272).

"New" features within the ceramic repertory: In Rutter's analysis of the "Lefkandi I" assemblage it is said that the type shapes of that assemblage never involve absolute identity with a shape at Lerna IV (1979, 12). However, the "Lerna cup" is an exact parallel, albeit in stone, to the two-handled cup of "Lefkandi I" type. It is noteworthy that parts of the Lerna cup were found in and above the debris of the "House of the Tiles" (see Caskey 1956, 164) and that consequently it was dated to the EHII period by Hanschmann (Hanschmann and Milojcic 1976, Beilage 30:31). But this date was changed to EHIII by Banks and followed by Rutter, because the "best stratified" fragment of the cup came from bothros B-Bs, datable to Lerna IV:1 (Rutter 1983a, 345 n.58).

Four totally new shapes appeared during Lerna IV: the tankard, the two-handled bowl, the one-handled cup and the ouzo cup (Rutter 1979, 9-10, n.28). In the analysis of the EHIII pottery, Rutter reached the conclusion that this pottery was the result of a fusion during the later part of EHII between "Lefkandi I" pottery, representing west Anatolian traditions, and local EHII pottery. Several resemblances between new EHIII shapes at

Lerna and some of the type shapes of the "Lefkandi I" assemblage, supposedly seen in the the ouzo cup (Rutter 1979, fig.6:1), the shoulder-handled tankard (1979, fig.3:1), the rim-handled tankards (1979, fig.3:2) and in a hybrid form of a tankard and an ouzo cup (1979, fig.7), were used as evidence by Rutter that such a fusion had taken place (1979, 10, 12).

Dark-on-Light ware was found in large quantities in Lerna IV and common shapes were shoulder-handled tankards, small cups, jugs and jars with rounded body and narrow flaring neck. Light-on-Dark ware was relatively scarce in Lerna IV (cf. Donovan 1961, 48-49, 51, 96-97, 99, 103, 105). The example of Light-on-Dark ware published by Caskey (1966a, 151, pl.52, fig.9IVc) was believed to be a local production by Wünsche (1977, 77). However, one sherd of this same type of ware was tested by neutron activation and was found to have been brought to Lerna from some other, unknown place (Attas, Fossey and Yaffee 1987, 87-88).

Fine Gray-burnished ware has been shown to be locally made in the Argolid (Attas, Fossey and Yaffe 1987, 88). Almost 2/3 of a total of 121 vessels of this ware found at Lerna were wheelmade and the shapes found were especially tankards, kantharoi and Bass bowls, of which the Bass bowls do not appear before Lerna IV:2 (Rutter 1983a, 327-355, esp.330 table 2).

Finely Incised and/or Impressed ware is burnished with dark surfaces (usually without paint). The most common shapes found in this ware are the pedestal-footed cup and the shoulder-handled bowl, occurring throughout all three subphases of Lerna IV. During Lerna IV:2-3, tankards, flasks and narrow-necked jars appeared and there are possible fragments of rim-handled or neck-handled tankards already in Lerna IV:1 (Rutter 1982, 463 table 2, 479-480).

It is noteworthy that many closed and large open shapes in Lerna IV apparently descended from Lerna III shapes. For instance, jars, pyxides, low-spouted jugs with strap-handles, and askoi do not differ much from Lerna III types (see Rutter 1979, 9, nn.22-25).

Terracotta anchors: Numerous terracotta anchors were found in Lerna IV (Caskey 1956, 162, pl.47:l-p; 1957, 152, pl.42:e). Nine of the anchors are clearly EHIII in date, while two are of MH date (Caskey 1986, 19). Banks presents parallel examples of both EHII and EHIII date and suggests that they might have been used in pairs (1967, 628-637).

Shaft-hole hammer-axes of stone: Stone tools were popular in Lerna following the end of the EHII period (Banks 1967, 698). The most important group of stone objects which occurred in periods IV and V are the shaft-hole hammer-axes. These began to appear in the middle phase of Lerna IV

and continued through period V. According to the chart in Banks eight hammer-axes were of EHIII date, one of transitional EHIII-MH date, while eleven were dated to MH (Banks 1967, 100-107).

A "ritual tumulus": Caskey assumed that the low convex mound, about 19 m in diameter, which was surrounded by a row of stones and which consisted of the fallen debris from the "House of the Tiles", was created soon after the catastrophe, at the beginning of period IV, by the "hostile" newcomers. These newcomers showed respect for the tumulus, Caskey said, as no other buildings encroached upon it until decades later (Caskey 1956, 150 fig.3, 166 fig.5; 1966a, 144; 1968, 314-315; Caskey and Blackburn 1977, 12; Caskey 1986, 14).

It is true that no houses were built within the limits of the tumulus until much later, but many bothroi were dug into the tumulus at the very beginning of the following period (see Caskey 1956, 165). It seems to me that this circumstance indicates that the assumed reverence shown to the tumulus by the newcomers, which always has been difficult to explain, was something of an illusion. In his last mention in print of the tumulus, Caskey tried to explain this odd "reverence" by suggesting that some EHII people survived the catastrophe and it was they who showed respect for the tumulus (1986, 14), but he did not draw the conclusion that the tumulus actually was *built* by the EHII people.

The radiocarbon date [2070] given to the tumulus in Caskey (1968, 315), refers probably to sample P-300, which was taken from Area BC, west of the "House of the Tiles" and just above the debris of that building (Kohler and Ralph 1961, 365). It is unclear how this sample relates to the tumulus itself as Area BC does not include any part of it (Caskey 1957, 144 fig.1). Furthermore it is noteworthy that sample P-312, consisting of burnt debris from corridor IV of the "House of the Tiles", has a comparable date of [2040], which makes the C^{14} dates inconsistent, i.e. the destruction of the "House of the Tiles" is younger than the tumulus above it (unless the latter contained much older material).

I do not think that there is any compelling reason to adhere to an EHIII date for the tumulus, and I suggest instead a final EHII date, which seems to me more logical. It is of some interest that Hammond suggested an EHII date for the tumulus (1973, 21), but later changed the date to a transitional EHII/III period (1976, 126 n.89). As the dating remains problematic, a final EHII date is proposed as a *terminus post quem* date until further details have been published concerning the tumulus.

It has been suggested that a burial still remains undiscovered in the tumulus or that it could have been a cenotaph (Müller 1989, 19-20 ns. 86-

89). However, drawing on the parallels with the tumulus found at Olympia in the Altis, I would like to propose that this is a "ritual tumulus", which was not meant to be used as a burial mound. The nature of the "ritual" in question will not be conjectured here.

Intramural burials: Nine intramural burials of EHIII date were discovered: one cist, one jar burial, and seven simple pits, which all contained the bones of infants (Blackburn 1970, 29-33; Caskey 1986, 14). Pullen has only mentioned four burials (1985, 116-117), whereas Zerner recently stated that eight intramural graves were found in Lerna IV (1990, 23).

Other possible changes: Around 4000 specimens of vegetable matter from Lerna have been analyzed statistically by Hopf (1962, 1-19). Barley was present from Neolithic through MH times; though sparse in Lerna II-III, it was very common in Lerna IV. Lentils and peas were quite common in Lerna II-III, but disappeared in Lerna IV. The same is true of figs, which were present in Lerna II-III but disappeared after that. Grapes were abundant during Lerna IV-V; besides, five seed impressions of grapes found on sherds show that they were known also in Lerna III, i.e. in the EHII period. Hopf concluded that lentils and peas were replaced by barley after the EHII period and that figs were replaced by grapes at the same time (1962, 4, 6-7, 10, 15, 19). Caskey warned that the random character of the collection of the vegetable remains at Lerna rendered Hopf's conclusions uncertain (1986, 16).

A notable increase is apparent from the beginning of EHIII in the amount of cattle, dogs, swine and sheep/goats found at Lerna. It was *possibly* during Lerna IV that the first appearance of the real horse occurred. A greater number of game animals appeared from Lerna IV onwards, and a change in avian fauna happened at the beginning of Lerna IV when partridges, pigeons, ravens and crows were present, apart from the swimming birds of the previous period. This change suggests an environmental change between Lerna III and IV. From now on, birds confined to drier soils appeared (Gejvall 1969, 36-37, 55-56, 58-59). In 1979 Caskey remarked that the true horse (*Equus caballus*) did not appear before the MH period at Lerna (1986, 15).

Human skeletal remains from the EH period are lacking. The MH material, however, was arbitrarily isolated into 13 clans, based on where at the site the graves were placed. Angel suggested, on the basis of an "extremely speculative survey", that the people of EHII date in Lerna derived from local Neolithic populations with racial characteristics from these. Then foreign elements, possibly the destroyers of the "House of the Tiles", arrived in EHIII from the east (Iran and steppe country), while

another invading and Indo-European-speaking group supposedly came from the north (6-9 generations later) in the MH period (Angel 1971, 104-111).

The change of raw material used by the flake industry, taken together with the noticeable increase in stone tools during Lerna IV-V, was suggested by Runnels to be the result of a decline in metal available. Thus, the changes between the EHII and EHIII flake industries reflected economic changes, rather than stylistic or technological changes; i.e. the same flint-knapping techniques were used throughout this period. However, this did not disprove that newcomers had arrived at Lerna IV, because the same technique was presumably used among flint-knappers of different "ethnic or cultural background" (Runnels 1985, 390-391).

General comments: Occasionally we can find indications that speak against an invasion at Lerna. Musgrave and Evans, in their multivariate analysis of craniometric data, have used 57 crania of MH date from Lerna. This material was subsequently compared to crania from Ayios Kosmas and Mycenae, and the conclusion reached was that there had been no change in the population in these areas between the EH and the MH periods (Musgrave and Evans 1981, 75, 89). As the material from Ayios Kosmas should be dated to the EHII period, this evidence can be used against Caskey's hypothesis about an invasion at Lerna; alternatively it was people of the same type as those from Ayios Kosmas who supposedly invaded Lerna during the EHIII period.

Moreover, lithic material similar to that found at Lerna has been interpreted by Mortensen in quite the opposite way from that of Runnels. At aceramic Beidha in Jordan, Mortensen noted a very high type stability in the flint-knapping industry, while at the same time abrupt changes were seen in the architecture (from round to rectangular houses). Contrary to Runnels, Mortensen drew the conclusion that, as the flint-knapping techniques were the same, there had been no immigration to the site (1973, 155-159).

Tiryns - Argolid (A:2)

Geographical setting: An oval rock outcrop on the E side of the Bay of Argos, 310 m x 45-115 m in size, which rises about 20 meters above the neighbouring Argive plain. The southern part is rocky, while the northern part is a flat mound. It is estimated that the sea shore during the EHII

period was about 250-300 m west of the site (see Dietz 1991, 281 n.687; Zangger 1991b, 7 fig.5).

Excavated: Extensively since the second half of the 19th century. The EH material is presented in the following sections: the "Oberburg" (including the old and the new excavations), the "Mittelburg" and the "Unterburg" (divided into the old excavations, pre-1976, and the new excavations, post-1976). EH material has also been found in the so-called "Lower Town" at the foot of the acropolis.

References: Müller 1913, 1930, 1938; Siedentopf 1971, 1973; French and French 1971; Voigtländer 1971, 1973, 1980; Kilian 1978, 1979, 1981, 1982, 1983, 1986; Weisshaar 1981, 1982, 1983.

The "Oberburg"

Study periods represented: A small strip under room XVI in the "Oberburg", which had been left unexcavated in 1907-1913, was excavated in 1984. The following strata were exposed from top to bottom: (1) MH, (2) pure EHIII, (3) transitional EHIII/EHII, (4) a destruction layer at the end of the EHII period on the E side of the "Rundbau" (the monumental circular building), (5) a rectangular building of EHII date oriented NW-SE, (6) a court adjacent to the "Rundbau", (7) two apsidal houses of early EHII date, which were destroyed in a fire and where one was cut by the basement of the Rundbau and (8) an almost sterile layer covering bedrock (Touchais 1985, 778).

Presence of a "destruction" layers: Yes.

Extent of the "destruction" layers: It is in no instance possible to relate the individual destruction layers found at Tiryns with the total area excavated of the EH settlement. In the case of the destruction layers found in the Oberburg we may note that Müller remarked that the "Rundbau" and the house E of it (wall 15) were destroyed, together with several houses in the "Mittelburg", at the end of the EHII period (1930, 87-88, 203). The "Rundbau" has been estimated to be 28 m in diameter and the destruction layer, consisting of burnt mudbricks and ashes, is described as covering the ground floor of the building (see Kilian 1986, 65-68, figs.56-59). We know that two apsidal houses of an earlier EHII period than the "Rundbau" likewise had been destroyed by fire, but on a previous occasion. No further details are published about this.

Dating of the "destruction" layers: As mentioned above, two apsidal houses of early EHII date, partly superimposed by the so-called "Rund-

bau", had been destroyed by fire, but the date cannot be correlated with the stratigraphy at Lerna, due to lack of published data.

The "Rundbau" was originally excavated in 1912-1913 with a supplementary sounding in 1927 (Müller 1913, 86-88 fig.2, pl.3; 1930, 80-88, pl.5). The lower portion of this building was found intact under rooms IV, VII, XVI and XXX of the Mycenaean citadel (Müller 1930, pls.1, 5). According to Müller's chronological chart, walls 20 (of the "Rundbau"), 15, 28 and 32 were contemporary (1930, 100, pls.6-6A). The curved wall 15 is what is left of a house E of the "Rundbau". This house was also destroyed by fire and in it, underneath the destruction layer, six storage vessels of EHII date were found (Müller 1930, 91 figs.52-53, 92). The house was located at a distance of 3 m from the "Rundbau" (Kilian 1986, 69). Pullen has objected to the way Müller has used a presumed relationship between walls 27 and 18 as a comparison to walls 20 and 15 (1985, 178) and Kilian warns that the presence of a destruction layer above wall 15 is not enough to establish contemporaneity with the "Rundbau" (1986, 71 n.49).

The more recent excavations of the "Rundbau", carried out between 1984-85, have added more details about this enigmatic construction. It has now been dated to a developed EHII phase, as its foundation cut an apsidal building of early EHII date, and because fragments of sauceboats were found in the building (Kilian 1986, 68). Kilian suggests that the destruction of the "Rundbau" happened at the end of the EHII period in the great catastrophe, which led to most sites being abandoned in the central Argolid (1986, 65, 69); this would mean that it should be correlated with EHII:D (as defined at Lerna). The finds from these excavations remain unpublished.

Apsidal buildings: Two apsidal houses of early EHII date were destroyed in a fire and one of them was cut by the basement of the "Rundbau" (Touchais 1985, 778). These two apsidal houses of early EHII date confirm, I think, Müller's observation that "Kurvenmauern" were found on bedrock underneath the "Rundbau" in rooms XVI and XXX (1930, 87, 91). It is not known if Müller referred to the apsidal houses excavated later on by Kilian, but I suggest that at least two apsidal houses from the "Oberburg" can be dated prior to the EHII:D phase (as known at Lerna).

"New" features within the ceramic repertory: The EH pottery from the old excavations was usually not recorded according to its find context; nevertheless Müller correctly defined a younger group of Pattern-painted wares, the so-called "Gemusterte Urfirnisware", which appeared fully developed at the beginning of the last EH phase (1930, 203-204; 1938, 1-2, 89). These later Pattern-painted wares of EHIII date will be further discussed in Chapter 5.2. However, I will mention some examples of this pottery found by Müller, but for which we have no find context. One depas in EHIII Dark-on-Light ware is depicted by Müller (1938, 77-78, pl.32:5, see also Rutter 1983a, 335 n.17). A fair number of Light-on-Dark sherds have also been published by Müller, e.g. a shallow saucer, a cup, bowls, an askoid jug? and a jug or a jar (1938, 58-59 figs.44-45, pl.24:1-12).

The "Mittelburg"

Study periods represented: Two EH phases were found above bedrock in 1927. Well-developed Urfirnis ware was found in the first stratum. The second stratum was a thick destruction layer in which a double pithos was found (Müller 1930, 113), supposedly of EHII date (Jantzen 1975, 79, 134 fig.42).

Presence of a "destruction" layer: Yes.

Extent of the "destruction" layer: The extent of the destruction layer cannot be related to the total area of excavation. Schliemann had found a destruction layer several meters thick, containing burnt bricks and charcoal, above a prehistoric house in trench S, located next to the stairs connecting the "Mittelburg" with the "Oberburg" (1886, 251, pl.1). As noted above, Müller's second EH stratum was a thick destruction layer (1930, 113), but the make-up and the extent of this destruction layer were not indicated by him.

Dating of the "destruction" layer: I believe that an approximate date of the destruction layer is indicated by the double pithos (Müller 1930, 113; Karo 1934, 40 fig.14; Müller 1938, 37 fig.34, pls.12:9, 13) of EHII date, which was found in it. Müller's statement that several houses were found in the "Mittelburg", which were destroyed at the same time as the "Rundbau" (1930, 203-204), cannot be verified.

General comments: It could be that the prehistoric house which Schliemann excavated in trench S belonged to the second EH stratum as defined by Müller. Material postdating the destruction layer was found in limited areas of the site, not over the whole citadel area, and therefore Müller reached the conclusion that only part of the citadel was destroyed (1930, 203-204). Three trenches were dug in 1985 in the southern part of the "Mittelburg", but are only mentioned in passing (AA 1986, 783; Kilian 1986, 71 n.49).

The "Unterburg" (the old excavations)

Study periods represented: EHII and EHIII.

Presence of a "destruction" layer: Yes.

Extent of the "destruction" layer: A trial excavation in the NW part of the "Unterburg" exposed a destruction layer 0.4 m thick, covering an area of 2-3 m x 0.8 m. The layer contained mudbrick detritus, ash and charcoal (Siedentopf 1971, 77-85).

Dating of the "destruction" layer: A vase deposit was found in the destruction layer, consisting of a jug and two EHII saucers on ring-feet, all of Urfirnis ware (Siedentopf 1971, 81 fig.4, pl.40:1-4). In the destruction layer there were also sherds of glazed saucers on ring-feet with incurving rims, fragments of sauceboats, and large bowls occasionally with taenia bands under the rims (Siedentopf 1971, 81 fig.5:1-11, 82-83, pls.41:1,3).

The presence of this "destruction layer" shows, according to Siedentopf, that the destruction layer Müller had registered in the "Oberburg" and the "Mittelburg" extended to the NW part of the "Unterburg" and thus that Tiryns followed the pattern found at Lerna, Asine and Zygouries, possibly also at Corinth and Ayios Kosmas (1971, 84-85). At the time this was written, I think, it was an overinterpretation of the material.

"New" features within the ceramic repertory: The Pattern-painted pottery found in the layers above the destruction layer are decorated with more tectonically arranged ornaments than the previous Patterned ware. From now on amphorai, tankards, one- or two-handled cups and shoulder-handled bowls appear at the site (Siedentopf 1973, 16-21; Jantzen 1975, 133-135).

In the southern part of trench II/2 Verdelis in 1965 found a vase deposit of EHIII date, implying that another stratum containing EHIII material would be found if further excavations were undertaken in this area (Siedentopf 1971, 85). An amphora in Dark-on-Light ware belonging to this deposit is published by Siedentopf (1973, 1, 17 fig.12, pl.5 no.102).

General comments: Siedentopf suggested that it was the conquerors of Tiryns, coming from the north, who brought the "new" kind of Pattern-painted pottery with them (1971, 85).

The "Unterburg" (the new excavations)

Study periods represented: The stratigraphy in the Unterburg, especially the EHIII stratum, is described as much disturbed, due sometimes to fox-

holes. This and the fact that previously excavated material actually has been lost (Weisshaar 1981, 250) have added to the uncertain interpretation of the EH period at the site. However, the new excavations undertaken since 1976 have produced material which the excavators have been able to divide into several subphases of both EHII and EHIII date.

Weisshaar devised in 1983 a stratigraphical sequence consisting of 13 subphases. These were in turn divided into four major phases:

subphases 1-4 = early EHII
subphases 5-8b = developed EHII
subphase 9 = "Übergangsphase" or early EHIII
subphases 10-13 = apsidal horizon of EHIII (1983, 329).

The subphases presented above, based on the pottery sequence, do not always match up with the architectural sequence, in contrast, Kilian says, to simplified excavation reports from other contemporary sites (1983, 327). The pottery sequence seems to correlate with the architectural strata in the following way (drawing on the preliminary data published until 1992):

subphases 1-4 = stratum IX
subphases 5-8a = stratum VIII
subphase 8b = strata VI-VII
subphase 9 = stratum V
subphases 10-13 = strata III-IV

The correlation of the EHIII pottery from Tiryns with that from Lerna as published by Rutter (1983a, 342) is the following:

Stratum V = Lerna IV:1
Stratum IV and sub R 121 = Lerna IV:2-3
Stratum III and bothros 2 = Lerna IV:3

Presence of "destruction" layers: Yes.

Extent of the "destruction" layers: The new excavations, undertaken between 1976-1985, have documented four "destruction layers" during the EHII and early EHIII periods when fire had destroyed the settlement in the "Unterburg". These will be described subsequently. It must be remembered that very little information has been published about these destruction layers and they cannot be correlated to the total area of the EH remains excavated.

Dating of the first "destruction" layer: The early phase of the EHII period is represented by houses ca. 11 m long with several rooms, built on artificial terraces and oriented NW-SE. They had wide stone walls, sometimes in herringbone masonry, and occasionally tiled roofs. This subphase 4 settlement ended with a destruction (Kilian 1983, 313 fig.40:a, 327).

Dating of the second "destruction" layer (incl. subphase 8a): After the destruction of the previous settlement larger houses were built (measuring ca. 20 m x 40 m). They had the same orientation as before, but their complex multi-room constructions were a stark contrast to the previous settlement. R 180-185 on the W side of the "Unterburg" and the house complex 197-200/205-206 on the E side were "somewhat" damaged by fire, which resulted in a slight remodelling where room 196 was added to room complex 197-200. This remodelled and somewhat expanded settlement represented subphase 8a which in turn was destroyed in a great fire (Kilian 1983, 327).

Dating of the third "destruction" layer: Settlement 8b, represented by rooms R 142-145-148 inspired in their complex multi-room system by the Orient, was also destroyed in a fire according to Kilian (1983, 327). The exact relationship between rooms 145, 146, 148 and the western end of this house complex was obscured by later building activity (Kilian 1981, 188 fig.44:b, 189-190). The extent of the 8b destruction layer is estimated to have been ca. 240 m^2 (calculated from Kilian 1981, 188 fig.44:b).

Pottery of subphase 8b was found in strata VI-VII and in "complex 8" (Weisshaar 1982, 462 fig.78). Examples of pottery from stratum VI are: saucers and bowls, either completely covered by glaze or painted with bands of dark-colored glaze; an occasional slipped and polished vessel; large T-rim bowls with taenia bands of overlapping discs with red or black glazed bands on the exterior (Weisshaar 1981, 233 fig.79:9-17, 235 fig.80, 236 fig.81, 239 fig.82:1-8, 252-253). Examples of pottery from stratum VII are: a balck glazed pithos with three taenia bands of overlapping discs; a small, plain bowl with out-turned rim; a saucer with a red glazed band on the exterior; a bowl with light-colored slip; a jar with dark glaze; a wide bowl with splayed rim; a red glazed ladle fragment (Weisshaar 1981, 230 fig.76:b, 232 fig.78:4-14, 233 fig.79:1-8, 251-252). Examples of pottery from "complex 8" are: one sauceboat, covered inside and out with glaze; one amphora with two handles on the belly and with two taenia bands of overlapping discs; saucers partly painted with dark-colored glaze; beak-spouted jugs, unpainted or slipped; one frying pan of local manufacture (Weisshaar 1982, 449 fig.66:4-5, 450 fig.67, 451 fig.68, 464-465).

As the pottery from the subsequent subphase has been correlated with Lerna IV:1 and as saucers with painted band occurred in this phase 8b, I assume that we can tentatively correlate this destruction layer with Lerna III:D.

Dating of the fourth "destruction" layer: Room complex 142-144 represents the first EHIII layer at the site. The size of this complex is estimated as ca. 190 m^2 (calculated from Kilian 1983, 312 fig.39:a). Once again the entire complex was destroyed in a fire (Kilian 1981, 189; 1983, 327). Room R 108 probably belongs to the apsidal building 109 and the pottery assemblage which was found in this room attributes it to stratum V, i.e. it was contemporary with room complex 142-144. Both stratum V and R 108 ended with a "destruction" (Weisshaar 1982, 458-462 fig.78).

Pottery from subphase 9 has been found in stratum V, in Room 108 and under the apsidal building 168 (see below on "new" features within the ceramic repertory).

Apsidal buildings: We saw above that room R 108 probably belongs to the apsidal building 109 and the pottery assemblage which was found in the room dates the house to subphase 9 (Weisshaar 1982, 458-462 fig.78). The southern wall of R 108 was oriented E-W and made of herringbone masonry (Kilian 1978, 467; 1982, 421 fig.39; 1983, 327 n.98).

Four apsidal houses are dated to subphases 10-13 (R 160, 161, 162, and 163) and were found in 1978-1979. R 160 is much disturbed by later constructions and the same is true of R 161, which was mostly removed when the later fortification wall was built. R 162 and R 163 are also apsidal buildings with the same NW-SE orientation as the previous ones. Both these houses are located S of a large apsidal house R 165 (Kilian 1981, 186-187 fig.43, 188 fig.44:a). R 165, was excavated in 1913/14 and the preserved length of it was 9.5 m, its width 7.5 m, and the thickness of the apsidal wall was 1.5 meters. R 165, oriented perpendicular to the previously mentioned apsidal buildings, was originally dated to the MH period (Jantzen 1975, 88-89), but according to the recent excavation results this date should be changed to EHIII (Kilian 1979, 407 fig.32:8,12, 408, 411; 1982, 421 fig.39). In 1980 still another apsidal house of EHIII date, R 168, was exposed which was aligned with R 160-163 but located N of R 165. The dimensions of this building were about 9 x 7.7 meters (Kilian 1982, 420-421 fig.39).

"New" features within the ceramic repertory: "New" features during subphase 9 (correlated with Lerna IV:1) are "Minyan" ware, Smear ware and ouzo cups. Standard Dark-on-Light pottery has not appeared yet, which is why Weisshaar calls subphase 9 a transitional phase (1981, 248, 1983, 330-

331, 333 fig.1, 353). The saucers continue in roughly the same amount during this and the following subphase (Weisshaar 1981, 227 n.261; 1983, 342 fig.11, 353). This is in stark contrast to Lerna where the saucers disappear altogether at the end of EHII (see Caskey 1960, 296). The shoulder-handled bowl is the most common shape in the "Minyan" ware (Weisshaar 1981, 245 fig.88:4, 246, 249 fig.90:1).

Subphase 9 pottery has been found in stratum V, in R 108 and under R 168. Examples of pottery from stratum V are: some Dark-on-Light ware; a bowl and a jug of Light-on-Dark ware; and two sherds of Fine Gray-burnished ware (Weisshaar 1981, 243 fig.86:2,7-8,10-11,13, 246, 248, 254-255). The Pattern-painted ware mentioned above is typologically EHII in date and not EHIII, according to Rutter, and the two "Minyan" or Fine Gray-burnished sherds, from a kantharos and a pedestal-foot, are probably contemporary with Lerna IV:1 (1983a, 341 n.43, 342, 354-355).

A brown polished shoulder-handled bowl or "Bass bowl" and one small rim-handled tankard with offset rim, on which a band of black slip was added, were found under building 168 and dated to subphase 9. There was also typical EHII pottery in this deposit (Weisshaar 1982, 442 fig.60:b, 446 fig.64:1-3, 447 fig.65:7-8, 448, 451, 464). In R 108 more than 18 % of the pottery fragments represented sauceboats (Weisshaar 1982, 458 fig.74). Dark-on-Light ware was lacking in R 108 except possibly one sherd (Weisshaar 1982, 458 fig. 74, 459 n.174).

Rutter has commented upon the large percentage of EHII pottery in subphase 9 and mentioned that the EHIII vessels found during subphase 9 were all comparable to material of Lerna IV:1 date (Rutter 1983a, 354). This meant according to Rutter that the so-called "Übergangsphase" at Tiryns had only a local significance and that there does not exist a truly transitional EHII/III phase in the Argolid. Furthermore, the earliest identifiable EHIII levels at Tiryns (subphases 10-13) postdated the beginning of Lerna IV (1983a, 354-355).

Phases 10-13 pottery: Examples of pottery referred to phases 10-13, the so-called "Apsidenhorizont", have been found in bothros 2 and under R 121, as well as in the apsidal buildings. Dark-on-Light ware constitutes less than 2% of the finds, e.g. a shoulder-handled bowl and tankard, two ouzo-cups and large bowls with offset rim (Weisshaar 1982, 440-441 figs.58:1,3-5,7,9-10; 59, 442 fig.60:a, 463). Polished ware, "Minyan" ware (supposedly Fine Gray-burnished ware), Smear ware and Pattern-painted ware constitute 13.4% of the total amount of sherds (1123) from the "Apsidenhorizont". Overall 52 "Minyan" sherds were found in these EHIII strata (see

Weisshaar 1982, 441 fig.59, 443, 456 fig.72, 458 fig.74; Rutter 1983a, 341 n.44).

One shoulder-handled bowl in Gray Minyan ware with horizontal combing on the shoulder (Weisshaar 1982, 444 fig.62:3, 445 fig.63), a kantharos and still another shoulder-handled bowl also of Gray Minyan ware were found in bothros 2 (Weisshaar 1982, 443, 444 fig.62:5,7, 445 fig.63, 464). The shoulder-handled bowl with combing on the shoulder was not considered as of Fine Gray-burnished ware by Rutter, whereas the other two vessels were and they have tentatively been dated to a phase corresponding to Lerna IV:3 (1983a, 334 nn.15-16, 341 n.44). Another fragmentary shoulder-handled bowl or "Bass bowl" and flask in Fine Gray-burnished ware came from stratum III (see Weisshaar 1981, 249 fig.90:2-3, 256), which Rutter likewise saw as corresponding to Lerna IV:3 (1983a, 341 n.43, 342).

One Bass bowl of Fine Gray-burnished ware, which Rutter has dated to Lerna IV:2-3, was found under R 121 (Weisshaar 1982, 455 fig.71:3, 458, 465; Rutter 1983a, 341 n.44, 342), as well as several small bowls and saucers of EHII date. The percentage of glazed sauceboats in this EHIII deposit was still high (ca. 8 %), compared to the Dark-on-Light ware (2.2 %). Only one third of the pottery is of typical EHIII wares (Weisshaar 1982, 456 fig.72, 458, 465). Finally, one other Bass bowl of Fine Gray-burnished ware was found in stratum IV, which supposedly was contemporary with the material under R 121 (Weisshaar 1981, 245 fig.88:4, 246, 255; Rutter 1983a, 342).

Terracotta anchor: A black polished terracotta anchor which has been dated to subphase 8b was found in the new excavations of the Unterburg (Weisshaar 1981, 239 fig.82:8, 253). Subphase 8b is the last subphase of the EHII period when compared to the stratigraphy at Lerna (i.e. EHII:D). The arm of another anchor was found in stratum Vc (Kilian 1982, 424 fig.46, 430) which has been synchronized with subphase 9 and Lerna IV:1.

Intramural burial: A female adult burial, clearly intramural, was found cut into a house wall of Room 197 (possibly of subphase 7). Kilian dates the burial to EHII, but without giving further details (1983, 318). Therefore this possibly intramural burial should be treated with some circumspection.

General comments: Weisshaar believed that as EHII shapes and ware linger on into the EHIII period and as new shapes and wares appeared at a slow pace, this meant that there was a gradual development at Tiryns without a similarly dramatic break between EHII and EHIII as at Lerna

(1983, 353-354). This is possibly true for the transition between EHII and EHIII.

On the other hand, there seems to be a more drastic change within the EHIII period itself, because neutron-activated sherds from subphases 9-10 suggest that extensive changes had occurred in the pottery production at Tiryns between these subphases (see Attas, Fossey and Yaffe 1987, 88-89). If we correlate these phases with the stratigraphy at Lerna, these changes occurred between Lerna IV:1 and Lerna IV:2.

The Lower Town

Study periods represented: EHII, EHIII and MH.

Presence of "destruction" layers: Yes.

Extent of the "destruction" layers: Evidence of destruction layers and other signs of discontinuities have been found on different occasions at several places in the Lower Town. It is noteworthy that several of these discontinuities seem to happen after the EHII period, either by flooding or by fire.

Dating of the "destruction" layers:
A deep probe in area F was dug in 1929 SE of the acropolis. Above a thick ash-layer some Dark-on-Light pottery of EHIII date was found, and under the ash-layer a pure EHII stratum containing sauceboats and bowls with taenia bands was exposed (Gercke and Hiesel 1971, 3-4, 9-10, Beilage 1, 5). An EHIII stratum was exposed in area H superimposed on a 0.6 m thick, almost sterile, layer which probably was deposited when the site was deserted, maybe due to flooding. Under this sterile layer two EHII strata were discovered (see for map location Gercke and Hiesel 1971, Beilage 1 "Graben H"; Gercke, Gercke and Hiesel 1975, 28-35).

Other signs of disruptions during the EH period are seen in area H, east of the "Oberburg", where pure EHII strata are found underneath a LH stratum (Gercke and Naumann 1974, 15-16). A two meter thick EHII layer (sub-EHIII and MH layers) was divided by a sandlayer 0.1-0.2 m thick in an area SE of the LH building M (Gercke and Naumann 1974, 20-21). Another deep probe W of the "Oberburg" exposed an EHII layer 0.9 m deep immediately under a thick MH stratum (Gercke and Naumann 1974, 23).

In 1980, excavations were conducted in a plot 170 m from the acropolis opposite the "Agricultural Prison". A thick EHII horizon, possibly mixed with some EHIII pottery, was topped by a Dark Age and Geometric cemetery (Hatzipouliou 1980, 124-125). The EHII horizon recorded by Hatzipouliou seemed to be the same as the one Verdelis found close to the "Agricultural Prison" in 1957 (see Verdelis 1963, 1-5). More recently, in 1987, a deep excavation was carried out SW of the citadel. In this trench a couple of EH stream deposits were documented above an EHII site, found at a depth of 5.5-6 meters below the Mycenaean material (Zangger 1991a, 837).

"New" features within the ceramic repertory: One sherd of Light-on-Dark ware of EHIII date has been published from the deep probe in area H by Gercke, Gercke and Hiesel (1975, 33 no.87). This particular fragment was seen as a probable import from central Greece by Rutter (1988, 87 n.3). A couple of Fine Gray-burnished vessels were likewise published from area H, one wheelmade Bass bowl and one handmade kantharos (Gercke, Gercke and Hiesel 1975, 33 no.86, 35 no.91). The kantharos has been dated to a period corresponding in date to Lerna IV:3, and the Bass bowl to Lerna IV:2-3 (Rutter 1983a, 337 table 3, 341 n.42, 342). Finally, a sherd of Finely Incised and/or Impressed ware was also recorded from probe H, but the shape was unidentifiable (Rutter 1982, 472).

Intramural burials: Three EH burials have been found in the Lower Town, but the information about them is very fragmentary. One infant burial of EHII date was found on the E side of the "Oberburg", but in this case it is impossible to say whether it is intramural or extramural (Gercke, Gercke and Hiesel 1975, 9-10).

Two other burials have been found in the "Agricultural Prison" area S of the acropolis (Verdelis 1963, 1 pl.1 nos.xx-xxi). These are probably of EHIII date and are possibly intramural as a stone wall was found at a distance of only 2 meters. There is, in my view, no reason to separate the burials in date as they were found very close to each other. Pullen, however, changed the date of burial no.xx to the EHII period because he thought that the the vessel accompanying the burial was a bichrome vessel of EHII date, rather than of Ayia Marina ware (1985, 118-119). But I believe that the shape of the vessel, a two-handled tankard with petal rim, supports French's original dating of it to EHIII and that the date of the burial consequently should not be changed.

Kephalari Magoula - Argolid (A:3)

Geographical setting: A low prehistoric mound, about 4 km NNW of Lerna and 2 km from the western shore of the Bay of Argos.

Excavated: In 1973 and 1984.

References: Kritzas 1973-74; Dousougli 1987.

Study periods represented: Pure EHII and EHIII strata were reported under a mixed EH-MH layer (Kritzas 1973-74, 246), but this material remains unpublished. However, some EHII and EHI pottery material has recently been published by Dousougli (1987, 173-175, 199-204, figs.26-28). A house corner, exposed in 1973, was dated by the associated find of a black glazed sauceboat to the EHII period (Dousougli 1987, 175 fig.6, 200 fig.26:152, 201 no.152).

Presence of a "destruction" layer: No.

Argos - Argolid (A:4)

Geographical setting: The site is situated on two acropolises, the lower Aspis and the much higher Larissa, with a ridge in between named Deiras. It is located in the center of the Argive plain, about 5 km N of the Bay of Argos.

Excavated: In seven campaigns between 1902-1930. Work was resumed in 1952 and has continued since then.

References: Vollgraff 1906; Courbin 1954; Deshayes 1966; Touchais 1980b.

Study periods represented: It was recently stated that both EHII architectural remains and pottery have been found at Argos (Dousougli 1987, 219 n.197; Zachos 1987, 279), but no architecture of EH date has yet been published from the site. That the stratigraphy is quite disturbed at Argos is indicated by the MHI house which was superimposed on Neolithic remains and exposed in an area ca. 150 meters SW of the Roman Odeon at the foot of Larissa (Daux 1967, 802-847).

We turn now to the issue of the EH pottery found at the site. Two saucers with incurving rims were found in a tomb in 1953 and were at that time dated to EHIII by Courbin (1954, 175 fig.31). The date of these saucers is changed to EHII by French (1968, fig.74), followed by Pullen (1985, 119), whereas Kelly (1976, 6) and Touchais (1980b, 29 n.140, 30 n.146) erronously adhere to an EHIII date for them. Another fragmentary saucer was found in 1974 in a surface layer on the Aspis (Touchais 1980b, 5 fig.3, 29 n.140). Drawing on the similarities of this saucer with the two previous saucers, I believe that this also should be dated to EHII.

Three incised sherds found on the Deiras were seen as EHIII in date by Deshayes (1966, 113-115, pl.99:6), whereas Rutter dated them to an early

MH period when compared to the stratigraphy at Lerna (1982, 472 n.14). In Touchais' opinion the Aspis was settled in the FN period and resettled in MHII times, while the "Lower Town" was settled during EHIII and MHI and subsequently abandoned (1980b, 30 ns.146-147). We have seen above, though, that what was formerly believed to be pottery of EHIII date has been changed to EHII, which leaves no securely dated EHIII finds at the site.

Presence of a "destruction" layer: No.

Apsidal buildings: Some EH apsidal housewalls are said to have been found in rescue excavations between 1980-1981 on the Parodos of the Odos Theatrou according to French (1990, 12), but a more precise date within the EH period for these walls is not given.

Tumuli: Touchais has mentioned that a MH tumulus near the Aspis possibly was constructed already during the EH period (1980a, 596). On what grounds he refers to it as possibly of EH date is not stated, nor whether it contained any burials or not. "Tumulus A", which is a double mound containing 12 burials, has been dated to the MH period by Müller (1989, 23 n.108, 37 n.24). The other 10 "tumuli" claimed as of MH date by Protonotariou-Deilaki (1980b, 9-22), are not considered as tumuli by Müller, but rather as naturally developed heaps of pebbles carried and deposited by the river Charadros (1989, 23 n.108).

Burial: A tomb, found in the plain near the modern S cemetery, was originally dated to EHIII because of the two saucers mentioned above (Courbin 1954, 175 fig.31). This date should in my opinion, thereby following French, be changed to EHII. It is unfortunately impossible to judge whether this burial was intramural or extramural.

Mycenae - Argolid (A:5)

Geographical setting: This is an acropolis site, with a flat top and steep sides, which overlooks most of the Argive plain from the NE. In the EH and MH periods the sides of the acropolis were less precipitous and constituted sloping hillside where occasional dwellings were built, accounting for the EH and MH pottery found there (Wace 1923, 117).

Excavated: Extensively since the second half of the 19th century.

References: Wace 1923; Wace and Lamb 1923; Rowe 1954; Mylonas 1958.

Study periods represented: EHII, EHIII and MH pottery has been found at the site (Wace 1923, 114-118) in soundings on the acropolis, in the area

NW of the Lion Gate and on the Kalkani Hill SW of the acropolis (Wace 1949, 21). This material has, however, never been properly published. I will presently mention a few of the instances when EH material has been found at Mycenae.

In a trial trench at the foot of the "Ramp" EH pottery was found, underneath MH material, lying directly on bedrock. Two EHII sauceboats and plenty of EHII glazed ware were among the material found (Wace 1923, 63-66). Two test trenches, one placed near the entrance to the Grave Circle, the other placed between it and the south front of the Granary, produced EHII, EHIII and MH sherds (Wace 1923, 109). Evidence of an EH-MH settlement was found near a fresh-water well on top of the Kalkani hill, which was a steep and easily defended hill SW of the acropolis (Wace 1932, 19, 21, 123). EH and MH material has also been recorded from the summit of the acropolis, under the walls and floors of the palace, and outside the Lion Gate in the area of the prehistoric cemetery (Wace 1923, 209, 217; Wace and Lamb 1923, 239; Wace 1957, 195; Touchais 1985, 776).

Presence of a "destruction" layer: No.

"New" features within the ceramic repertory: Stamatakes found in his work between 1877-78 pottery material, spanning the whole EHI-III period, at a low depth in the 6th shaft grave in Grave Circle A (Wace 1923, 114-117, figs.26-27). The Dark-on-Light sherds found by Stamatakes were all of the "Late Patterned type" (Donovan 1961, 9). A pyxis (Wace 1923, 115 fig.26:h) was made of Finely Incised and/or Impressed ware and was dated to the EHIII period by Rutter (1982, 472).

Shaft-hole hammer-axe of stone: Part of what Wace called a bored hammer celt, probably Early Bronze Age, was recorded as among Stamatakes' finds by Wace (1923, 353 no.83). The find context, reportedly in the dromos to the "Treasury of Atreus", however, is so insecure that we cannot give an exact date to it.

General comments: The MH cemetery which was found on the W slope of the acropolis contained almost 100 graves and indicated together with some MH stone walls that a permanent settlement existed at that time (Wace 1923, 118; Blackburn 1970, 249-270; Alden 1981, 117-121).

Berbati - Argolid (A:6)

Geographical setting: A small acropolis site in the Berbati valley, about 3 km SE of Mycenae.

Excavated: In 1937.

Reference: Säflund 1965.

Study periods represented: EHII, EHIII and MH architectural remains were found at the site (Säflund 1965, 101). Early and late EHII pottery was recently identified by Wiencke (1989, 498 n.16), and EHIII:2-3 pottery has previously been identified at the site by Rutter (1983a, 338). Pullen suggested that a possible hiatus existed at the Mastos during EHIII:1 (1985, 77).

Presence of a "destruction" layer: Yes.

Extent of the "destruction" layer related to the excavated area: Roughly 10-20 x 55 m or 825 m^2 were excavated on a terrace on the S slope of the acropolis. A 0.2-0.3 m thick ash-layer was found, ca. 0.25-0.5 m above the floor of the Megaron, extending over the Megaron and over the adjacent Pithos-store (Säflund 1965, 101, 104 table 7). I have estimated the area covered by these buildings to be about 88 m^2 (see Säflund 1965, excavation plan).

At a later stage in the excavation report Säflund (1965, 130) remarked that the data indicated that the entire excavated area was interrupted at the same time and that a thick ash-layer separated the last EH stratum from the following MH strata. Furthermore, he said that the S slope was devastated by a vast conflagration and the pottery which followed the substantial ash-layer revealed a new character (1965, 159). Consequently the destruction layer probably covered the entire area of 825 m^2.

Dating of the "destruction" layer: The so-called Pithos-store (room N) is trapezoidal in shape with stone walls 0.7 m wide topped by mudbricks. E of room N is a courtyard (P). Three giant pithoi, scored by fire, as well as several terracotta roof-tiles were found in the Pithos-store, and these together with "Gray Minyan 1" sherds, also scored by fire, date the house to the EHIII period (Säflund 1965, 95). In the layers which follow the substantial destruction layer, there does not seem to be any trace of EH pottery. In its place is Matt-painted pottery, together with the later Gray Minyan II ware which shows significant differences in shapes as well as decorations compared to Gray Minyan I (Säflund 1965, 158-159). Immerwahr supported Säflund's dating of the destruction to the end of EHIII. Moreover, she was the first to comment on the wider implications of such a date and said that a revision of Caskey's theory, whereby the Argolid as a whole suffered a destruction at the end of the EHII period, was needed. Berbati seemed to follow the pattern of Eutresis rather than Lerna, she said (1966, 294). But Wünsche believed that Immerwahr overestimated

the importance of Berbati. In his opinion the results from Berbati did not have to contradict the evidence from Lerna and Tiryns concerning an earlier EHII wave of destructions (1977, 20 n.54). Hope Simpson and Dickinson dated the destruction to late EHIII or early MH (1979, 39), while van Royen and Isaac spoke of a minor displacement also at the end of the EHII period when the "Megaron" was abandoned (1979, 11-12).

Pullen supported Säflund's EHIII date and equated the pottery in the debris of house N/P with that of Lerna IV and Kolonna Cities V-VI (Pullen 1985, 196). In 1987 he published a more detailed description of the contents of house N/P, which apparently contained e.g. Fine Gray-burnished ware, Urfirnis ware, Pattern-painted ware and "BBII" or Smear ware (1987, 541 n.72).

"New" features within the ceramic repertory: The Dark-on-Light ware is called C-ware by Säflund. The paint is in black, red or reddish/brown on yellow/white, buff or whitish/green ground. Examples of shapes are a small, globular, deep bowl with out-turned rim (Säflund 1965, fig.127:15 and 94:a-b) and tankards, also of small size (1965, fig.109:a). Fragments of askoid shapes in addition to one complete askos were also found (1965, figs.103-104), as well as a small pyxis, which had a small vertical rim and horizontal lug-handle on the shoulder (Säflund 1965, 148, 152, fig.128:9). This globular pyxis is similar in shape to one fragmentary pyxis found at Asine (see Frödin and Persson 1938, 227, fig.165). Donovan does not rule out the possibility that this shape belongs to the "Early Patterned Ware" of EHII date (1961, 31, 44-45). The decoration is partly similar to his E5a motif (see Donovan 1961, pl.6). Only 2 sherds were of Light-on-Dark ware, one small jug fragment (Säflund 1965, fig.110:g) and one base (1965, 152).

Säflund's "Gray Minyan I" ware was sometimes wheel-made, but usually hand-made. The decoration on shoulder and neck consisted of horizontal grooves, which sometimes terminated at the handle with a series of vertical, parallel lines (Säflund 1965, fig.95:a; he is not consistent as he refers to the same fig. as being of BB ware on p. 121). Rutter says that fig.95:a (and fig.122:5a-b) shows a combing technique which has much narrower horizontal grooves than the Fine Gray-burnished ware (1983a, 334 n.15). The main shape made in "Gray Minyan I" ware is the globular, deep bowl with out-turned high rim, usually with two vertical band-handles set on the shoulder or, less frequently, with the upper part set on the rim and extending above it (Säflund 1965, fig.94:c, 95:b-c, 97:b, 123:12-17). Of the "Gray Minyan I" vessels mentioned above by Säflund, some were considered to be kantharoi (Säflund 1965, figs.94:c, 123:13-14, 17) or Bass

bowls (1965, figs.97:b, 123:12, 15, 16) of Fine Gray-burnished ware by Rutter, who furthermore considered the majority of them to be contemporary with Lerna IV:2-3 (1983a, 337-338). Does this imply that EHIII:1 is missing at Berbati as Pullen has suggested (1985, 77)?

Terracotta anchors: Two fragmentary anchor-shaped pendants of clay were found in secure EHIII layers by Säflund (1965, 127). They are not illustrated.

Intramural burials: One pithos-burial, 1.5 m outside a terrace-wall of EHIII date, contained the skeleton of a child in a Matt-painted pithos. A Gray Minyan II bowl, decorated with incised festoons, was found by the side of the pithos (Säflund 1965, 125 fig.101, 126 fig.102). Another grave, a shaft-grave in bare earth, which contained the skeleton of an adult but no gifts, was also found ca. 1.5 m outside the terrace-wall mentioned above (Säflund 1965, 125). Both of these burials can be considered to be intramural as MH housewalls were exposed nearby (see Säflund 1965, excavation plan). Alden mentioned at least 22 MH graves from the site (12 on the Kastraki and 10 under the potter's quarter), but it is not said whether he considered them to be intramural or extramural burials (1981, 276-277).

Some skeletal remains were found in building B in connection with some pottery and a bronze dagger of EHII/III date (Säflund 1965, 111, 123-124). A bowl on a high foot and with two horizontal lug handles (a fruitstand) was among the vessels accompanying the dead and was dated to the EHIII period by the excavator (1965, 123-124 fig.99). Koumouzelis referred to the tomb as being a pithos burial of EHII date (1980, 52, 55, 118 n.3), but this cannot be supported because the pithos sherds found nearby were explicitly explained by Säflund to be a later deposit than the skeleton (1965, 109 fig.89, 110-111). The fruitstand was recently dated to a late EHII period (Wiencke 1989, 498 n.16), but as the burial is not a burial *per se*, but rather the remains of a person accidentally or intentionally killed, I have not included it among the intramural EHII tombs.

Prosymna - Argolid (A:7)

Geographical setting: An acropolis on the NE flank of the Argive Plain, 5 km SE of Mycenae and 7 km NE of Argos. The prehistoric settlement was found on the summit and on a narrow platform along the N side of the hill (Blegen 1937, 13).

Excavated: In the 1920s and in 1949.

References: Blegen 1937; Caskey and Amandry 1952.

Study periods represented: EHII, EHIII and MH. Rutter suggested that the site was abandoned from a late EHIII date until a late MH date (1985, 35; 1990, 453).

Presence of a "destruction" layer: No.

"New" features within the ceramic repertory: The EH pottery which has been published was found at various parts of the site, e.g. below the South Stoa and from the East Yerogalaro ridge, even though the majority comes from the acropolis (Blegen 1937, 376, plan 1).

Much Pattern-painted material was found, mostly Dark-on-Light ware (Blegen 1937, 377 fig.637), but also a few Light-on-Dark sherds (1937, 377 fig.637:11-12). This painted pottery was considered to be "Late Patterned ware" by Donovan (1961, 8). Among the shapes represented in Pattern-painted ware were cups with splayed rim, tankards and a large jar (Blegen 1937, 377 fig.636:6). Pithoi decorated with rope-like bands with blunt impressions (1937, 377 fig.638:9) have been dated to EHIII by Rutter (1982, 460 n.4).

A neck-handled jug of Finely Incised and Impressed ware (Blegen 1937, 377 fig.638:7) has been synchronized in date with phase 3 of Lerna IV (Rutter 1982, 472, 480). Fragments of a large vessel with zigzag design of parallel lines, separated and bordered by rows of dots (Blegen 1937, 377 fig.638:1-2, 378), are possibly from a narrow-necked jar, likewise of Finely Incised and Impressed ware, which Rutter dated to late EHIII (1982, 472, 476).

More EHIII pottery, e.g. Dark-on-Light ware, and MH pottery were recovered from soundings made in 1949 below the East Building, located on a natural terrace below the acropolis (Waldstein *et alii* 1902, pl.4; Caskey and Amandry 1952, 166 fig.1:trench 1, fig.44:1-2,8-9).

General comments: The remains of five circular shafts, ca. 1.5 m in diameter and 0.9 - 1.3 m deep, were found on the East Yerogalaro ridge, filled in with stones, soil and some EH sherds (Blegen 1937, 46-47, figs. 82-83). Blegen suggested e.g. that these shafts could have been what was left of some EH tombs similar to the type found at ancient Corinth. I think that the evidence is far too elusive to say anything about this feature.

Dendra - Argolid (A:8)

Geographical setting: Gently sloping ground on a low hill, about 1 km west of the acropolis of Midea, located in the central part of the Argive plain.

Excavated: In the 1920s, 1930s, 1956-60, 1962-63.

References: Persson 1931; 1942; Åström 1977; 1983; 1986.

Study periods represented: EHII, EHIII and MH (Åström 1983, 11, 56).

Presence of a "destruction" layer: No.

"New" features within the ceramic repertory: One sherd found in the dromos of chamber tomb no.14 (Åström 1977, 112, 121 fig.142) might be of Finely Incised and/or Impressed ware of EHIII date, but as it is found out of context we will not discuss it in connection with this type of ware in Chapter 5.2.

General comments: It has been suggested that a tumulus of EHII date was found at the site (Åström 1986, 93-94). The evidence of this was that a one-meter-thick layer of small stones and pebbles, in what seem to be about 10-12 courses, showed up as a slanting line in a four-meter-long section (Åström 1986, fig 86). This feature cannot be paralleled by any other EH tumuli (the tumulus at the New Museum site at Olympia had a nucleus of no more than 2-3 courses of river stones). However, at Argos the stone formations created by the flooding of the river Charadros might be compared to this feature at Dendra, but the illustrations in Protonotariou-Deilaki (1980b) are too sketchy to tell.

Midea - Argolid (A:9)

Geographical setting: An acropolis with a large summit ca. 220 x 160 m, which reaches 270 m a.s.l. Midea is situated in the central part of the Argive plain.

Excavated: In 1939, 1963, 1983-1991.

References: Persson 1942; Walberg 1967; Åström 1983.

Study periods represented: EHII-EHIII and MH (Walberg 1967, 164-165; Åström 1983, 39 table 1). In the northern part of the Acropolis, at a lower elevation than the summit, EHII and EHIII sherds were found in trenches III, V and VI (Persson 1942, 4 fig.1; Walberg 1967, 164-165, 174, pl.II). Trench A, dug in 1963, produced a limited amount of EH and MH pottery

in every stratum (except the surface stratum) mixed with a concentration of Mycenaean pottery (Åström 1983, 22-41, figs.65-84). No EH architectural remains have been exposed so far on the acropolis.

Presence of a "destruction" layer: No.

Kiafa

About 500 meters west of Kiafa, the lower town of Midea, excavations in 1962 produced EH pottery in trial trenches A-C (Åström 1983, 17, 56, figs.23, 25, 36). Bedrock was reached only 0.1-0.5 m below ground, which means that the EH material is just beneath the surface. The pottery collected seems to be of EHII date.

Kazarma - Argolid (A:10)

Geographical setting: An acropolis site which dominates the route between Nauplion and Epidauros.

Excavated: In 1968-1969.

Reference: Protonotariou-Deilaki 1969.

Study periods represented: EH pottery was found in a circular moat or pit under the dromos of a tholos tomb, which was excavated 200 m E of the acropolis (Protonotariou-Deilaki 1969, 105, pl.82:b). French has recorded both EHII and MH sherds from the site, presumably from the surface of the acropolis (1972, figs. 10, 14).

Presence of a "destruction" layer: No.

Asine - Argolid (A:11)

Geographical setting: An acropolis, 350 m x 140 m in size and 52 m a.s.l, situated on the Kastraki peninsula. Below the acropolis is the so-called Lower Town which is a triangular area (each side is 150 m), sloping in terraces towards the NW. Geological investigations have shown that the Kastraki was an island in EH and MH times (Nordquist 1987, 23).

Excavated: In the 1920s, 1930, 1980s.

Reference: Frödin and Person 1938 (henceforth *Asine*).

Study periods represented: EHII, EHIII and MH. Describing the same deep trench in square G 14 in the Lower Town (illustrated in *Asine*, fig.42), Westholm and Persson make two quite different descriptions of the stratigraphy:

Persson (*Asine*, 202)	**Westholm (*Asine*, 97)**
The apsidal Wall 1 was found in an EHII layer, not in an EHI layer which began from the bedrock.	Wall 1 was found in a homogeneous EH layer, there was no change from bedrock and up.
A limestone floor exists between Wall 1 and the last phase of EHII, which contains the burnt remains of an EHII building.	No limestone floor was recorded between Wall 1 and the burnt layer.
The EHIII ash-layer is 15-20 cm thick and contains the debris of a collapsed building.	The second building level (EHIII) above Wall 1 is 0.75 m thick and contained plenty of mud-brick chunks, rooftiles and sherds.

There are numerous other contradictions in the publication (Pullen 1987, 537 n.47), which mainly were due to the fact that the records were kept according to different principles by the different excavators (Nordquist 1987, 13). Nordquist admits that sometimes "the diaries are more confused than usual" (Nordquist 1987, 75). Of some importance in connection with the discrepancy seen above is that Persson was at the site at the time of excavation and is responsible for the daybook concerning the deep probe G14, while Westholm was not even part of the crew at Asine in 1930. Thus, Persson's description should in my opinion be seen as more trustworthy than Westholm's.

Presence of a "destruction" layer: Yes.

Extent of the "destruction" layer related to the excavated area: It is said that about 2500 m^2 of the Lower Town was excavated and EH material was found especially on Terrace III (*Asine*, 47). Also two areas on the acropolis produced EH material, the so-called "pre-Mycenaean Terrace" and the "Polygonal Wall Terrace" (*Asine*, 41-45, 91-96). See also Dietz (1984, 24 fig.1) for the total excavated area.

Wherever MH strata are superimposed on EH strata, e.g. on Terrace III and in the southern part of the Lower Town, the two are said to be separated by a thick burnt layer (*Asine*, 259), but it is not possible to estimate the extent of when this occurred. Actually, only once are the excavators more specific about the nature of the destruction layer and that is when

Persson (*Asine*, 202) describes the transition from EHIII to MH as marked by a burnt layer 0.15-0.2 m thick in the 4 m^2 large trench in square G 14.

Dating of the "destruction" layer: Persson dated the major destruction to the end of the EHIII period (*Asine*, 259), whereas Caskey changed this date to the end of the EHII period (1960, 300-301). He explained Frödin and Persson's mistake by referring to erosion carrying most of the EHIII material away (Caskey 1971, 787). The main reason behind Caskey's redating of the destruction was the character of the pottery found in House R and in a bothros on the pre-Mycenaean terrace (*Asine*, 212-214, fig.158:1-4), which in both cases had been considered as closed EHIII deposits by Persson. As Caskey changed the date of these deposits to EHII, he indirectly changed the date of the destruction to EHII. This new date was based on a comparison between Lerna III pottery and the Asine deposits, as well as on alleged similarities between the roof-tiles (in G14 probe) and a seal impression (in House R) found at Asine and Lerna III (Caskey 1960, 301).

According to Persson's diary, level 260-270 in the deep G14 probe contained sherds of sauceboats, burnt mudbricks and roof-tiles while the lower level 270-280, besides EH sherds, contained one Matt-painted and one Black Minyan sherd, i.e. some MH pottery was found in what was described by Persson as the last EH destruction. A slight contamination was seen in still lower levels, i.e. 300-330 and 330-350 (Persson 1930, Asine diary 18, entries 5/4 and 8/4, levels 260-350).

Müller-Karpe agrees with Frödin and Persson's date of the destruction to EHIII (1974a, 871), whereas Hope Simpson and Dickinson support Caskey's date for it (1979, 49). Weisshaar dates the pottery from House R and consequently the destruction to an "EHIII früh" phase, which he considers to be a transitional phase between EHII and EHIII (1982, 462-463, fig.78), contra Pullen (see below). MacGillivray regards Persson's closed deposits as of EHIII date; consequently he dates the destruction to some time in the course of EHIII and not at the end of EHII (1983, 82 n.9).

Pullen considers the large number of more or less complete vessels to be difficult to explain if one dismisses the House R group as a single deposit, but says that the many question-marks regarding this deposit exclude it from further consideration; consequently it cannot be used to support either Caskey's or Weisshaar's chronological scheme (1987, 538, 541, 544). The fact that 30 graves of MH and later date were found inside or very near the walls of House R explains, in Pullen's view, why the material is so mixed that under a pure EHII layer in "ruta no.9" there was possibly a MH burial (1987, 540 table 1, 541 n.66). I agree with Pullen that

the finds from House R are too disturbed to be used as a means to date the destruction layer.

However, concerning the destruction debris in probe G14 we have seen that the description in Persson's diary, with the additional information of the sauceboat fragments, seems to support Caskey's dating of it to EHII. The small amount of later contamination in most levels recorded by Persson does not invalidate an EHII date for this destruction layer, I think. Moreover, we know that tiles of the kind found in the destruction layer can be correlated with Lerna III:C-D material, which consequently is the tentative date suggested here for the destruction layer at Asine.

Apsidal buildings: According to Westholm's architectural synthesis House R and House S on Terrace III are of EH date (*Asine*, 94, 96). House R consists of three rooms lying one behind the other. The eastern part of the house was built in a shallow cutting in the rock so as to level the floor. Rooms I and II are rectangular, while room III has an apsidal wall with gently curved outline (*Asine*, 91-92, fig.68).

Pullen recently published a detailed study of House R and reached the conclusion that three building phases were distinguishable (1987, 538-539, fig.2). Regarding the apsidal end (Wall 2) Pullen thinks that it is unclear whether this really is an apse or if the curve, which is a quarter circle and not a half circle, is due to some unknown constraint by contemporary structures (1987, 539). In Sinos' opinion the curved wall was too large to be an apse (1971, 37), whereas Weisshaar accepts House R as an apsidal building (1982, 463, n.196).

In studying the published plans of House R a careful scrutiny of the stone wall reveals that the character of the apsidal wall changes at the quarter circle point. After this point the stones are bigger; they are laid in a careless manner and lack the carefully made inner and outer faces which are seen up to this point (see *Asine*, figs.68, 73). This implies, to my mind, that House R actually was apsidal originally, but that later disturbances and remodellings have obscured the original house-plan.

Concerning the dating of this apsidal house Persson considered the vessels found on the floor as a closed deposit of EHIII date (*Asine*, 214-219). Vessels 1-17 of this group have unanimously been dated to EHII (e.g. Caskey 1960, 301; Weisshaar 1982, 463; Pullen 1987, 538), whereas vessels 18-21 are more controversial (see below). The many graves of MH, LH and later date, which were found inside or very near the walls of House R, explain very well why the material is so mixed inside House R that we cannot pinpoint the dating of it. I hereby suggest a *terminus post quem* date of EHII for House R.

Finally, I should also mention Wall 1, which is part of an apse found in square G14. This wall is clearly of EHII date as the levels recorded for this wall in the diary are pure EHII and not contaminated with younger material (Asine diary 18, Persson 1930, entry 8/4, levels 330-400). Both Wall 1 and House R are considered as EHII apsidal houses by Felten (1986, 28 n.40) and Pullen recently dated Wall 1, described as curved and not necessarily apsidal, to an early EB2 phase (1990b, 339 n.12). As it was found below the destruction layer tentatively dated to a phase corresponding to EHII:C-D, an early EHII date seems correct.

"New" features within the ceramic repertory: Vessels nos.18-21, which are part of the deposit found in House R, consist of: a fragmentary Pattern-painted jug (*Asine*, 217 no.18, 218 fig.160:5), a two-handled black Polished jar (*Asine*, 217 no.19, 218 fig.160:6), a one-handled black Polished mug (*Asine*, 218 no.20 fig.160:7) and a plain, one-handled cup (*Asine*, 218 no.21 fig.160:8). Caskey accepted all four as EHIII in date (1960, 301), whereas Weisshaar considers only nos.19-21 to be of EHIII date (1982, 463). In MacGillivray's view the whole group of vessels found on the floor of House R is a closed deposit of EHIII date (1983, 82 n.9). Donovan considered the Pattern-painted jug to be of EHIII date (1961, 41), whereas Pullen, following a suggestion made by Rutter, dated this jug to an early MH phase (1987, 538 n.57).

Some other Pattern-painted pottery, mostly Dark-on-Light ware but also a few Light-on-Dark sherds, was recorded from the site (*Asine*, 226-227 figs.165-166, 228-229 fig.176). Donovan considered both EHII and EHIII material to be present even if the EHIII variety was most common (1961, 7). The find context for this material is unknown except in the case of the jug which was mentioned above.

Five sherds made of Fine Gray-burnished ware have been published by Nordquist. Four of these were found in bothros 11 in the N part of house T and one was associated with a mixed stratum connected with House R (1987, 73, fig.33:1-5; 1990, 241-243).

Terracotta anchors: One terracotta anchor was found in what was described as the EHIII stratum in square G14 (*Asine*, 250-251 fig.177:1). Weisshaar suggests that the presence of Pattern-painted ware dates the terracotta anchor to the end of the EBA (1980, 39 n.40). This statement cannot be supported as the exact find context of this anchor was not given by the excavators; besides, Persson's concept of the material cultures of EHII and EHIII date has been shown to be wrong. Statistically the anchor stands a greater chance of belonging to the EHII period (levels 260-320) because the only level which actually contained EHIII material (level 250-

260) was not included among the strata considered as EHIII in date by Persson (*Asine*, 202).

Shaft-hole hammer-axes of stone: Five shaft-hole hammer-axes of stone were found at Asine in total (*Asine*, 244-245 fig.175:7, 246:h-l). Two of these are recorded by the excavators as found in a mixed EH/MH layer (*Asine*, 246:h,k), and were dated to EHIII by Banks (1967, 108). However, Nordquist referred only one of them (*Asine*, 246:h) to a mixed EH/MH layer (1987, 116 no.17), while she considers all the others to be MH in date (1987, 116 nos.11, 13, 15-16).

Intramural burials: Two, possibly three, tombs of EH date were found at Asine (*Asine*, 338-341). Tomb 1 contained a child's skeleton and three shallow bowls (*Asine*, 339, fig.230:1-4), while Tomb 2 contained three shallow bowls (*Asine*, 339-340, fig.231). Persson says that Tomb 2 also contained a child skeleton, while Frödin says that no human remains whatsoever were found in it (*Asine*, 42, 339)! Both these tombs in rock cavities were found on the "Pre-Mycenaean Terrace" and were considered to be extramural by Persson (*Asine*, 338, 340). Another possible EH tomb was found under the E wall of Room II of House R. Consequently House R (possibly of EHIII date) functions as a *terminus ante quem* for this burial.

Pullen dated the first two tombs to a late phase of EB2, probably equivalent to Lerna III:D. Furthermore, he considered these two, as well as the third one, to be intramural (1985, 118). But in 1987 he says that "despite the numerous graves, none could be dated to the EBA" (1987, 541). This is rather surprising and quite contradictory to his earlier statements.

In addition to the few EH tombs mentioned above, no less than 111 MH tombs have been recorded from Asine, of which five were located on the acropolis, 105 were found in the Lower Town and one was found outside the later city wall. Nordquist considers all of them to be intramural, but admits that the distinction between intramural and extramural is vague in the absence of walls (1987, 91, 95).

Two extramural cemeteries, one on the Barbouna slope and one E of the Mastos, were partly excavated during the 1970s and produced a total of 36 burials (Nordquist 1987, 98-101, 134-136). The Barbouna slope cemetery is of late MH/early LH date, while the earliest graves in the East cemetery are of transitional MHI-II or earlier date (Nordquist 1987, 23, 103).

The Barbouna Hill

Excavations carried out between 1970-72 in the Levendis sector on the Barbouna Hill, NW of the the Lower Town at Asine (Hägg and Hägg 1973,

24, fig.2), produced a fair amount of EHII material and some EHIII pottery (Fossey 1978, 11, 43 fig.33). In Area I the sherd material tapers off during EHII to stop altogether in EHIII (a residual amount of EHIII sherds was found). Only a scatter of EH debris was found in Area II, while the accumulation of sherds, 211 EH sherds out of 336, found in Area III, may derive from a small adjacent plateau to the north which remains unexcavated. Fossey suggests that it was this plateau that was inhabited through most, if not all, of the EH period (1978, 18, 24, 38). There was no habitation on the Barbouna during the earlier parts of the MH period according to Dietz (1982, 101; 1984, 26 fig.2, 27).

Synoro - Argolid (A:12)

Geographical setting: A small rocky hill situated in a narrow valley ca. 4 km NW of Kandia and 14 km ESE of Nauplion.

Excavated: In 1939.

Reference: Döhl 1973b.

Study periods represented: EHII and some MH pottery has been found at the site (Döhl 1973b, 198, 214, 219-220). According to Wiencke no EHII pottery from the site could be correlated with material postdating early Lerna III:B (1989, 498 n.18).

Presence of a "destruction" layer: Yes?

Extent of the "destruction" layer related to the excavated area: The excavated area consisted of a trench ca. 3.5 m x 4 m with a long and narrow extension southwards (Döhl 1973b, 196 Fig.2). In the NW corner of the rectangular trench a deep destruction layer was found which contained "soil red burnt by fire, black burnt pieces of mudbricks and some ash" and which was said to extend into the NW and NE baulks (Wrede in Döhl 1973, 196-197). Döhl says that the ashlayer could have been a limited one, and could even be the remains of a bothros; but it could also have extended over the whole site, destroying the settlement at the end of the EHII period (1973b, 198 n.5, 214).

Dating of the "destruction" layer: Examples of vessels found which date the destruction layer are: two glazed sauceboats of Lerna III date, types I and II (Döhl 1973b, 198-199 n.8, pl.79:2,4); saucers with incurving rim and ring-foot (1973b, 199-201 figs.3-4); T-rim bowls (1973b, 202-203 fig.7) and a pyxis (1973b, 202 fig.6). In Döhl's opinion the destruction layer might indicate that Synoro and its surroundings were part of the catastrophe horizon between EHII and EHIII (1973b, 214) and this view is supported more or less by Schachermeyr (1976, 206). Döhl also made a connection between this "destruction" and an alleged increased importance of the neighbouring settlement Kandia during EHIII (1973b, 214-215). No EH architectural remains were found at Synoro.

Overall, I believe that Wiencke's correlation of the pottery from Synoro with that from Lerna indicates that the site was abandoned, possibly after a destruction, at some time during the EHII:B phase.

Kandia - Argolid (A:13)

Geographical setting: This is a small hill, with a summit 80 x 50 m, at the edge of a valley about 4 km SE of Synoro and 1 km from the Bay of Argos.

Excavated: In 1939.

Reference: Döhl 1973b.

Study periods represented: EHIII and MH material has been found at the site, and possibly also EHII (Döhl 1973b, 215 n.41). According to French (1972, fig.10) EHII material from the site is to be found in the Museum at Nauplion. In this connection he is also referring to Walter (1940, 220) and Gebauer (1940, 300), yet in neither of these cases is EHII material mentioned, but rather Pattern-painted ware of EHIII date and what is possibly a krater (tankard) in Smear ware (Gebauer 1940, 300; Walter 1940, 220; Döhl 1973b, 216).

Presence of a "destruction" layer: No.

Apsidal buildings: In addition to the EH pottery, an EH apsidal house was exposed on the acropolis under MH layers (Dunbabin 1944, 82). I suggest tentatively an EHIII date for this apsidal house, because the majority of the EH pottery found at this site was of EHIII date.

"New" features within the ceramic repertory: Dark-on-Light ware of the EHIII variety was found (Döhl 1973b, 215-216, pl.83:1-2) in addition to some Smear ware (1973b, 216) and an EHIII sherd with plastic and impressed decoration (Döhl 1973b, 217, pl.86:4; Rutter 1982, 460 n.4).

Iria - Argolid (A:14)

Geographical setting: A low double hill by the Bay of Argos, SE of Kandia.

Excavated: In 1939.

Reference: Döhl 1973a.

Study periods represented: EH and MH material has been recorded, but was not dated according to subphases within the EH period (Döhl 1973a, 130, 169, 177-178). However, some Pattern-painted sherds from the upper trench (1973a, 136-137, 177, pl.78:1) should in my opinion probably be dated to the EHIII period. Foley has mentioned that EHII material was found at Iria (1988, 182).

Presence of a "destruction" layer: No.

"New" features within the ceramic repertory: As noted above, Döhl has published some Dark-on-Light pattern painted sherds from the site (1973a, 177, pl.78:1). These are probably of EHIII date.

Epidauros - Argolid (A:15)

Geographical setting: A flat-topped hill named Kynortion, in the mountainous country of Epidauria.

Excavated: In 1975-1978.

References: Lambrinoudakis 1977; 1978.

Study periods represented: Some sherds of what seems to be a T-rim bowl and bowls or pithoi with taenia bands have been published from the site (see Lambrinoudakis 1978, pl.89:c,e), which presumably indicates an EHII date. The excavator mentioned two building phases of EH date, but did not give any further details about these (Lambrinoudakis 1977, 193, pl.123:b, 1978, 111-112 fig.1). Much MH pottery was found, but no MH settlement strata, and this led the excavator to conclude that there might have been a break in occupation after the EH period (Lambrinoudakis 1981, 63). However, I believe that the MH pottery found at the site should be taken as an indication that the site was settled also during MH; that MH settlement strata are lacking can be explained by erosion of the site.

Presence of a "destruction" layer: No.

Terracotta anchors: Terracotta anchors were found in a pit, which was created when the EH houses were destroyed by later building activities, according to Lambrinoudakis (1978, 113). I assume that these anchors are of EH date, subphase unknown.

Ayia Marina - Spetses (A:16)

Geographical setting: A low promontory on the E coast of the island Spetses.

Excavated: In 1970.

Reference: Theochares 1971.

Study periods represented: EHII. The site seems to have been abandoned after the EHII occupation and the excavator does not exclude a connection of this fact with the burning of the "House of the Tiles" at Lerna (Theochares 1971, 92-93). Two Pattern-painted vessels in Dark-on-Light ware were found in a well and are considered by Theochares to be of EHII date (1971, 88, 91 figs. 5-6). However, Hope Simpson and Dickinson dated these vessels to the EHIII period (1979, 58-59). Parallels have now been found at Manika on Euboia by Sampson (1985, 184-185 fig.64) and by Sapouna-Sakellarakis (1986, 35 fig.14). Sampson does not date his sherds, while Sapouna-Sakellarakis gives a tentative date of EHII-III for her finds (1986, 35), which possibly means late EHII in conventional terms.

Presence of a "destruction" layer: No.

Zygouries - Corinthia (B:1)

Geographical setting: A low mound about 165 x 70 m in size, in the valley of Cleonae, halfway between Corinth and Mycenae.

Excavated: In 1921-1922.

References: Blegen 1928a; Pullen 1985.

Study periods represented: EHII-III and MH material has been found at the site, but a complete sequence of stratification with well-marked lines of division was not exposed, as the top of the hill had been levelled off (Blegen 1928a, 3, 125, 216-218). The site was possibly completely abandoned after the EH destruction and was not inhabited again until towards the end of the MH period (Blegen 1928a, 216-217). That the site was abandoned at a late EHIII:3 stage until late MH was recently suggested by Rutter (1990, 453).

Presence of a "destruction" layer: Yes.

Extent of the "destruction" layer related to the excavated area: It has been estimated that about 450 m^2 was exposed of the EH settlement in the central area of the mound (Pullen 1985, 262). In addition to this four sound-

ings were made off the mound and seven on the mound. A total of ten EH houses were exposed of which seven were in the central area, two in the southern end (Houses U and Y) and one in the northern quarter of the mound (House L). The majority of these houses seem to be contemporaneous and stood in blocks formed by intersecting streets and lanes (Blegen 1928a, 4-28, pls.1-2; Pullen 1985, 199-208).

Blegen said (1928a, 216) that the houses of the EH settlement came to an abrupt and simultaneous end as the result of a conflagration and that they were never rebuilt, but he did not give any further details about the resulting destruction layer.

Dating of the "destruction" layer: Caskey said that the burnt layer was third in chronological order and therefore taken as of EHIII date, a date which he questioned and subsequently changed to the end of EHII (1960, 300), which seems to be generally accepted (see e.g. Donovan 1961, 9-10, 19; Hope Simpson and Dickinson 1979, 66; Salmon 1984, 15; Pullen 1985, 199; Hood 1986, 57).

The Patterned-painted sherds, mentioned as being found *under* the floors of the burnt houses (Blegen 1928a, 101), are presumed to be of the earlier EHII variety (Caskey 1960, 300; Donovan 1961, 9). Unfortunately Blegen does not state which sherds came from under the floors, but it was recently said that a thimble of Dark-on-Light ware and two sauceboats (Blegen 1928a, fig.88:1-3, 89, pls.7:2, 10:2), of EHII:C date, were found in the fill under the "House of the Snailshells" (Wiencke 1989, 497 n.6). Incidentally Pullen mentioned that "EHII destruction debris" was found by Blegen under the floor of the "House of the Snailshells" (1986b, 79). But the relationship between this "EHII destruction debris" and the "fill" mentioned by Wiencke cannot be worked out due to lack of published data.

How shall we deal with the EHIII pottery which has been recorded as found in the destruction layer? Caskey and Donovan, as well as Hanschmann, reached the conclusion that these are later intrusions from bothroi or other disturbances (Caskey 1960, 300; Donovan 1961, 9; Hanschmann and Milojcic 1976, 181 n.706).

Most of the pottery from the destruction layer is of EHII date and Wiencke suggests that EHII:C pottery (when correlated with Lerna) was most abundant, but that EHII:D material "probably" also was present (1989, 498). Caskey recorded a decrease of Yellow Mottled ware at Lerna at the very end of EHII (1960, 289) and, if this is taken as of chronological significance, meaning that Yellow Mottled ware was not found at the end of EHII (see Rutter 1983a, 349 n.66), I would like to suggest that the abundance of Yellow Mottled ware in the "destruction" layer at Zygouries indicates a date of EHII:C for the "destruction" of the settlement.

Apsidal buildings: Finding part of a curved wall in trench VI, E of the mound, Blegen "conjectured" the idea of an apsidal house, but nothing more (1928a, 28). This house was of late MH date.

"New" features within the ceramic repertory: The following pottery has been considered to be of EHIII date. A tankard in Dark-on-Light ware (Blegen 1928a, 103-104, pl.13:2) was found in trench VI outside the main excavation area (which very well could account for the later EHIII date of this vessel). One pedestal-footed cup (Blegen 1928a, 124 fig.116) was republished by Rutter who considers it to be of Finely Incised and Impressed ware tentatively dated to a phase corresponding to Lerna IV:2. This cup was apparently found out of context and without any associated sherd material (1982, 470-471 n.11, 480). A slipped and polished chalice or incense burner (Blegen 1928a, 124-125 fig.117) was found beneath an EH pithos, set in the stream bed 100 m S of the mound (Blegen 1928a, 118, 125).

The previous analysis leaves the find contexts of several Pattern-painted sherds of EHIII date unaccounted for (Blegen (1928a, 102 fig.88:7-12, pl.11:4-6,10 in Dark-on-Light ware; pl.11:2-3 in Light-on-Dark ware; pl.13:1 a Dark-on-Light shoulder-handled tankard). At the present state of our knowledge about the find circumstances of this EHIII material, it is not possible to decide whether it can be used to change the date of the "destruction" layer or not.

Burials: Four extramural tombs of EH date were excavated in the cemetery on Ambelakia Hill, 500 m W of the mound (Blegen 1928a, 42, 45-55). Howell (1973, 79), followed by Pullen, dated these to the EHII period and Pullen suggests that all of them were used for adults (1985, 106-110, figs.9-13).

Apart from these burials four intramural MH graves, one cist grave and three pit graves were found in the settlement, besides five MH tombs in the cemetery (Blegen 1928a, 39-45, 55-57, 66-67). Blackburn, however, says that three of these might be later than MH (1970, 281-282).

Tsoungiza - Corinthia (B:2)

Geographical setting: A ridge along the W side of the Nemea valley, where a knob of the ridge at 375 m a.s.l. forms the EH settlement area. During EH times there were two knolls separated by a deep ravine, which was filled in during the EHII and especially the EHIII periods. The Nemea valley sits astride an easy passage from the Argolid to the southern plain of Corinth.

Excavated: In the 1920s, then again in the 1970s until the early 1980s (by UCB) and finally between 1984-1986 (by NVAP).

References: Blegen 1927; Harland 1928; Miller 1982; Wright 1982; Pullen 1985; 1986a; 1990b; Wright *et alii* 1990.

Study periods represented: The latest EHII material found at the site is equivalent to Lerna III:C (early) according to Wiencke (1989, 499). Then there is a hiatus in the occupation until EHIII:2 (Rutter 1990, 376; Wright *et alii* 1990, 628 n.104) and another hiatus between late EHIII and late MH (Rutter 1990, 376; Wright *et alii* 1990, 622 n.108). Thus, an EHII subphase which is equivalent to the "House of the Tiles" at Lerna is lacking at Tsoungiza.

Presence of a "destruction" layers: Yes.

Extent of the "destruction" layers related to the excavated area: All the previous work undertaken at the site has been mapped (sometimes only approximately) in connection with the NVAP excavations, which covered 270 m^2 (Pullen 1990b, 332 fig.1).

Harland believed that the entire settlement was destroyed at the end of EHIII (1928, 63) and this seems to have been corroborated by the most recent work at the site (Pullen 1990b, 344). The extent of this "destruction" is not known, but it is possible that all the houses of EHIII date, i.e. houses C, D, E, F, G and H (Pullen 1990b, 334 fig.2, 344), were destroyed by fire. The new excavations have also found evidence of both a destruction layer and signs of abandonment in part of the settlement represented by House B and the "Burnt Room", where burnt debris was found in an area 3.5 x 3.5 m and 0.3 m thick (Pullen 1990b, 334 fig.2, 340-343). There are also some signs of an earlier fire destruction (represented by House A) and this time it supposedly affected the entire settlement (Pullen 1990b, 333, 340).

Dating of the "destruction" layers: House A, representing the first EHII subphase at Tsoungiza, was destroyed by fire and built over by House B, which in turn probably was abandoned at some time during the second subphase of EHII (Pullen 1990b, 334 fig.2, 340, 343). The "Burnt Room", in

which a deposit of over 20 vessels of EHII date was found, probably was contemporary to House B (Wright *et alii* 1990, 625, 627 n.98, pl.94a; Pullen 1990b, 333-334 fig.2, 343). The deposit in the "Burnt Room" has been reported to be the latest EHII pottery found at the site (Pullen 1988, 252) and does not include anything later in date than EHII:C (early) when compared to the pottery sequence at Lerna (Wiencke 1989, 499). This means that part of the settlement, represented by the "Burnt Room", was destroyed by fire at some time during EHII:C, while at the same time another part of the settlement, represented by House B, appeared to have been abandoned. Finally, as already noted, the EHIII buildings seem to have been destroyed by fire (Pullen 1990b, 334 fig.2, 344-345).

Apsidal buildings: The earliest datable architectural evidence found on top of the Tsoungiza hill was according to Pullen a curved wall (38) of early EHII date. It was not possible, however, to say whether it belonged to a circular or an apsidal building (Pullen 1990b, 335 fig.3, 339). Furthermore, Pullen mentioned that apsidal buildings of EHIII date were found, but he does not digress further on this topic (1990b, 333).

"New" features within the ceramic repertory: Pattern-painted ware, mostly Dark-on-Light, was found by Harland (1928, 63). Several hundred Fine Gray- burnished sherds were also recovered in the 1920s according to Rutter, who identified two tankards, at least five kantharoi, but mostly Bass bowls, among this material. Rutter suggests that the EHIII pottery from the site, including the Pattern-painted ware and the Fine Gray-burnished ware, should be seen as contemporary to Lerna IV:2-3 (1983a, 339), more exactly after an early phase of EHIII:2 (1990, 376).

Terracotta anchors: Four or five (two pieces possibly belong to the same anchor) terracotta anchors, most of which synchronize in date with Lerna III:B/C, have been found in the new excavations of Tsoungiza (Pullen 1992, personal communication), while another anchor came from Harland's excavation, but for which neither context nor date is known.

Intramural burials: One intramural cist tomb containing a child skeleton was found below the SW corner of the House E ("the House of the Querns"). Harland had dated the grave to EHII and such a date was supported recently by Pullen (1990b, 335 fig.3, 343).

Aetopetra - Corinthia (B:3)

Geographical setting: This is an oval-shaped hill with steep cliffs and a flat plateau, which is located on the southern part of the Corinthian plain, ca. 3 km W of Old Corinth. The site dominates an old passageway through the hills, southward to Argos.

Excavated: In 1978-1979.

Reference: Hatzipouliou-Kalliri 1978.

Study periods represented: The material found in the excavations is dated to EHII-EHIII and MH by the excavator (Hatzipouliou-Kalliri 1978, 335). Such dates were also recorded by French (1972, figs. 9-10, 12-14). Most of the EH pottery came from two bothroi cut into bedrock on top of the hill (Hatzipouliou-Kalliri 1978, 326).

Presence of a "destruction" layer: No.

"New" features within the ceramic repertory: Some Dark-on-Light tankard fragments of EHIII date are recorded by Hatzipouliou-Kalliri (1978, 326 pl.91:b).

Intramural burial: One MH intramural pithos burial containing a child skeleton was exposed in the excavations (Hatzipouliou-Kalliri 1978, 329-330).

Cheliotoumylos - Corinthia (B:4)

Geographical setting: A small isolated hill at the edge of a plateau overlooking a plain to the N. The site is about 800 m NW of the Apollo temple in ancient Corinth and 3 km from the sea.

Excavated: In 1930.

References: Shear 1930; Waage 1949; Blegen, Palmer and Young 1964.

Study periods represented: The pottery found in a well was originally dated to EHIII (Waage 1949, 415-422), but this date was changed to EB2 by Pullen (1985, 114), who remarked that this pottery eventually will be published by Lavezzi (Pullen 1985, 154 n.12). French has recorded EHII-EHIII and MH pottery from the site (1972, figs.10-12, 14). Thus, surface material found at this site indicates that it possibly was inhabited throughout the EHII-EHIII-MH period.

Presence of a "destruction" layer: No.

"New" features within the ceramic repertory: Light-on-Dark pottery of EHIII date, which now is part of the BSA collection, was recorded by French (1972, fig.11), who also mentioned that a tankard, with either one or two handles, likewise is included in the BSA collection (1968, fig.56). In both these instances the pottery probably has been found on the surface.

Terracotta anchor: One terracotta anchor was found in the well (Waage 1949, 421, pl.63; Kosmopoulos 1948, 60, fig.41:a-b). Weisshaar dated this anchor to early EHIII or transitional EHII/III, because he believed the Pattern-painted sherds, which were found in the well, to be of EHIII date (1980, 39). Donovan, on the other hand, dated the small amount of Pattern-painted sherds found in the well to the EHII period (1961, 10-11) and, as already noted, the date of the whole pottery group found in the well has been changed to EHII. Consequently I think that the terracotta anchor found together with this pottery is also of EHII date.

Burials: A water well was excavated in 1930. The shaft was about 17 m deep and 1 m in diameter (Waage 1949, 415-422). The well contained between 20 and 30 burials of mixed age and sex (Shear 1930, 405-406; Waage 1949, 421-422). The 60 restorable vessels which were found in the well have been redated to the EHII period, which consequently is also the date of the multiple burial (Pullen 1985, 113-115). However, this is not a burial *per se* and is therefore not considered as an intramural burial.

A MH cemetery with 12 or 13 burials was excavated in 1929-1930 (Blegen, Palmer and Young 1964, 1-6, pls.2-5) and should possibly be associated with the settlement at Cheliotoumylos. Most of these graves were shallow pits containing adult burials accompanied by Matt-painted vessels.

General comments: Even if this site is located very close to the Temple Hill site at Corinth, it makes sense to make a distinction between the two, as Cheliotoumylos seems to have material spanning the EHII-MH period, whereas Corinth lacks both EHIII and MH material. It is plausible that Cheliotoumylos took over the role of Corinth at the end of the EHII period, when that site was abandoned. Was this shift of location the result of invaders threatening Corinth? I do not think that this is likely because the new location is very close to the older one and does not seem to be easier to defend than the previous site.

Ayios Gerasimos - Corinthia (B:5)

Geographical setting: A settlement mound near the shore about 3.5 km W of Korakou.

Excavated: In 1972.

Reference: Protonotariou-Deilaki 1971.

Study periods represented: EHII-III pottery was found in the excavations made by Protonotariou-Deilaki (1971, 68). In a trench some distance from the main excavation area four building phases of EH date were exposed, the last possibly of late EHIII date (Protonotariou-Deilaki 1971, 69-70). French has recorded that EHII and MH material from this site is included in the BSA collection (1972, figs.10, 14).

Presence of a "destruction" layer: No.

Ancient Corinth - Corinthia (B:6)

Geographical setting: This is a well-watered site on a low mound called Temple Hill, in the fertile valley of Pirene, about 3 km from the sea.

Excavated: Extensively since 1896.

References: Heermance and Lord 1897; Weinberg 1937; 1948; Kosmopoulos 1948; Broneer 1951; Robinson and Weinberg 1960; Wiseman 1967; Williams II and Fisher 1971; 1972; 1973; 1976; Williams II, MacIntosh and Fisher 1974; Robinson 1976; Lavezzi 1978; 1979.

Study periods represented: The EH material found between 1896 and 1935 was not later than EHII in date (Kosmopoulos 1948, 4). In 1940 Weinberg excavated a well (A) in which he thought both EHII and EHIII pottery was found (1948, 197-203, pls.70-71). However, all this pottery should be dated to the EHII period (Hanschmann and Milojcic 1976, 179 n.693). In more recent excavations the same picture is given, i.e. EHII pottery has been found, but nothing of EHIII or MH date (Robinson and Weinberg 1960, 244-245).

Concerning the issue whether EHIII material has been found at the site or not, Donovan did not mention any EHIII Pattern-painted pottery from Corinth (1961, 10-11), contra to Weisshaar, who suggested that such pottery actually has been found (1980, 39). But Weisshaar did not substantiate this statement; consequently we cannot assess its validity. Rutter has mentioned that one sherd of EHIII type is included among the unpublished

ceramic finds from Corinth (1982, 460 n.4). This is so far the only evidence that EHIII pottery has been found at Corinth. As Rutter's identification of this sherd seems to be of a rather tentative nature, I do not think there is reason to believe that the site was occupied also during EHIII (besides there is always the question whether one sherd is enough evidence for the site to have been settled).

Salmon suggests that Cheliotoumylos (No.B.4) was the site for the MH settlement in the area as MH pottery was lacking at Corinth (1984, 15). In my view this assumed change of settlement location from Corinth to Cheliotoumylos probably occurred during the EHIII period as evidenced by the lack of EHIII pottery at Corinth.

Presence of a "destruction" layer: No.

Terracotta anchor: One terracotta anchor was recorded and dated to period V (i.e. EHII) by Kosmopoulos (1948, 59-60, fig.41:a-b). Lavezzi has supplied information about the exact find context of this anchor and said that it was found in 1931 in a large and significant EHII deposit prior to the building of the new Museum at Corinth (1979, 346 n.12). The EHII date is supported by e.g. Banks (1967, 636) and Buchholz and Wagner (1987, 132), whereas Weisshaar prefers an EHIII date for it (1980, 39). However, I do not find any reason to doubt its EHII date.

Burials: The only securely dated tomb is a shaft-tomb which was found in a trench about 175 meters NE of Temple Hill (Heermance and Lord 1897, 314-315 figs.1-2, 319-323, pl.14). The pottery found in the tomb is exclusively of EHII date (Pullen 1985, 111). Three shafts similar to the shaft-tomb mentioned above were noticed by Heermance and Lord, but no finds could corroborate that these were actual tombs (Pullen 1985, 112). In later excavations one other possible shaft-tomb of EHII date was documented near the "peribolos of Apollo" (Kosmopoulos 1948, 18-19; Pullen 1985, 112-113). It is not absolutely clear that the tomb (tombs) at this site is extramural, but as this seems most likely I have counted one as EHII in date and extramural. The remaining four are more questionable both in date and as burials.

Gonia - Corinthia (B:7)

Geographical setting: This is a low ridge, 40 m x 25-160 m in size, about 4.5 km E of ancient Corinth with a view over the Corinthian Gulf and

commanding the ancient route through the pass between Acrocorinth and Mt. Onium toward the Argive Plain.

Excavated: In 1916.

Reference: Blegen 1930.

Study periods represented: The pottery recovered at the site spans the whole EHII-EHIII-MH period and walls of substantially built houses were found in every trench (Blegen 1930, 59, 79). The EHIII pottery corresponds in date with all three subphases of Lerna IV (Rutter 1983a, 338).

Presence of a "destruction" layer: No.

"New" features within the ceramic repertory: A Light-on-Dark Pattern-painted tankard from the site (Blegen 1921, 11, fig.11; 1930, 75), was thought to be a central Greek import by Wünsche (1977, 77). French has mentioned that Dark-on-Light pottery from the site is included in the BSA collection (1972, fig.11).

According to Rutter, 35 vessels (no tankards, but kantharoi and Bass bowls) of Fine Gray-burnished ware, found at Gonia (unpublished), should be seen as contemporary to Lerna IV:1-3 (1983a, 337 table 3, 338 n.24).

Intramural burial: One MH intramural burial has been recorded at the site by Blegen (1930, 64 fig.13).

Yiriza

At Yiriza, a site W of and contiguous to Gonia, trial trenches were made in 1916 in connection with the work at Gonia. Pullen, examining the field-books and the unpublished pottery from the site presently stored at Corinth, concluded that several architectural phases have been found, all datable to the EHII period (1985, 296).

Korakou - Corinthia (B:8)

Geographical setting: A low mound, 260 x 115 m in size, next to the sea and about 2 km W of modern Corinth.

Excavated: In 1915-1916.

Reference: Blegen 1921.

Study periods represented: Pottery from EHII-EHIII and MH has been found at the site, where the lowest stratum representing the EH period averages 2 m in depth (Blegen 1921, 6-35).

Presence of a "destruction" layer: Yes.

Extent of the "destruction" layer related to the excavated area: About 1600 m^2 were uncovered in the central area of the mound, mainly exposing LH houses, but also some MH walls as well as one EH wall, which possibly was apsidal (see Blegen 1921, pl.8). According to the excavator a well-marked layer of ash, which seemed to extend over the whole site, was found between EHIII and MH strata (Blegen 1921, 2, 124). The EH material was principally recovered in eight deep trenches on the mound, while the MH material was found partly in the same trenches as the EH and on the eastern slope of the mound (Blegen 1921, 3).

Dating of the "destruction" layer: Blegen dated the destruction layer to the end of the EHIII period (1921, 122); however, he did not date the architectural remains according to subphases within the EH period (1921, 14, fig.108). Therefore it is impossible for us to discern which buildings actually were destroyed in the fire.

The pottery found after the destruction indicated a complete break in continuity where hardly any EH elements survived the catastrophe (Blegen 1921, 124). From now on wheelmade Gray Minyan ware, Argive Minyan and Matt-painted ware appeared (Blegen 1921, 15-17, 19-24, figs.18-22, 27-33). Caskey said at one point that the soundings were too small to date the destruction (1960, 301), but on the following page (1960, 302) he dated the destruction at Korakou to the end of the EHIII period. This inconsequence has been pointed out by Salmon (1984, 14 n.61). While Wünsche dates the destruction to the end of the EHIII period (1977, 19), Hope Simpson and Dickinson (1979, 61) dated it to the EHII period.

Blegen noticed a deep layer of ash and debris at the bottom of level VIII, but Rutter says that it is unclear whether this burnt stratum contained level IX material, which was underneath level VIII, or if it included material of level VIII. Moreover, he cannot say if this burnt layer affected the whole site or only trench P (1982, 471 n.12).

I think there might be a possible solution to this problem, as Blegen specifically pointed out that a vessel with incised decoration was found in the highest level of the first stratum (1921, 14). If this highest level is equivalent to level IX and Lerna IV:1, which is the date suggested for the neck-handled tankard in Finely Incised and Impressed ware found by Blegen (Rutter 1982, 470 n.10), and Blegen had recorded a deep layer of ash at the bottom of level VIII, is it not likely that this was what Blegen described

as a "well marked layer of ash which probably extended over the whole site"? Consequently I suggest that level VIII material dates the destruction layer (not level IX) and that a tentative date for this destruction layer can be correlated with Lerna IV:2, which is the date given to the pedestal-footed cup fragment found in level VIII (Rutter 1982, 471, 480).

Apsidal buildings: One possibly rounded corner of EH date, which might be part of an apse, was exposed by Blegen (1921, 75 fig.108, pl.8; pit W of house M). This curved wall was seen as of EB2 date by Pullen (1990b, 339 n.12), but I do not think that the stratigraphy, as published by Blegen, is clear enough to date this stone wall. On the other hand, parts of two MH apsidal buildings were certainly exposed by Blegen. A large part of house F, oriented N-S, was uncovered by Blegen. It has two internal crosswalls of which one divides the southern end into a vestibule, while the other divides the apse from the main hall. At a short distance NW of house F part of another MH apse was found, this time oriented E-W (Blegen 1921, 76-79).

"New" features within the ceramic repertory: Pattern-painted ware of the Dark-on-Light variety was found in the following shapes: askoi, two-handled tankards and small bowls with one handle (Blegen 1921, 9 fig.9, 10 fig.10). Light-on-Dark ware was found in small quantities (Blegen 1921, 9 fig.9:15-16, 20-22). Donovan has dated all the Pattern-painted pottery found at the site to the EHIII period (1961, 11).

It is explicitly stated by Rutter that no Fine Gray-burnished ware of EHIII date has been found among the Korakou material (1983a, 336, n.21). A vessel with incised decoration (Blegen 1921, 13-14 fig.17) was republished by Rutter as a neck-handled tankard of Finely Incised and Impressed ware (1982, 470 no.39). As already mentioned, the tankard was found in trench P, level IX and the material from this level has been seen as contemporary to Lerna IV:1 (Rutter 1982, 470 n.10). Two fragmentary pedestal-footed cups of Finely Incised and Impressed ware were also republished by Rutter. One of those was of unknown find context, while the other was found in trench P, level VIII. Both of them are tentatively dated to a period contemporary with Lerna IV:2 (Rutter 1982, 471 nos.41-42, 480).

Intramural burials: Two intramural burials of MH date were found at the site. One consisted of a Matt-painted pithos containing two infant skeletons, while in the other case an infant burial was found with scattered Minyan sherds around it (Blegen 1921, 100-101).

General comments: Rutter has suggested that the first phase of EHIII at Korakou (PIX-X) may predate the earliest EHIII occupation at Lerna, because during this phase Finely Incised and/or Impressed ware appeared at Korakou before the Pattern-painted wares (1982, 488).

Kalamaki - Corinthia (B:9)

Geographical setting: This is a tomb site near the Corinth Canal which was found during roadwork.

Excavated: In 1956 (chance discovery).

References: Broneer 1958; Pullen 1985.

Study periods represented: Seventeen whole or nearly whole vessels and many smaller fragments were found, which possibly came from one or two tombs originally (Broneer 1958, 28-29, pl.12:a-b). The finds consist exclusively of EHII pottery among which was a fragment of a sauceboat made of early Dark-on-Light ware (Donovan 1961, 61, 118; Wiseman 1967, 26 n.22). Wiseman has recorded that MH pottery was found on the surface at this location (1978, 46-47).

Isthmia - Corinthia (B:10)

Geographical setting: At the narrowest point of the Isthmus on gently sloping ground EH pottery was found, possibly from a grave located further up the hill.

Excavated: In 1954.

Reference: Smith 1955.

Study periods represented: EHII. Ten intact vessels of EH date were found, together with some bone material. The pottery included e.g. open bowls, beak-spouted jugs with twisted handles, a sauceboat and a one-handled cup. Smith considered this material to be of Neolithic to early EH date (Smith 1955, 142-146, pl.57). However, Pullen dated the whole pottery group to the EHI-EHII period (1985, 120-121, 156). The find context of this material is problematic, but it seems likely that it came from an EHII tomb.

Perachora/Heraion - Corinthia (B:11)

Geographical setting: The Heraion lies on a promontory in the SW corner of the Perachora district and about 2 km W of the lake Vouliagmeni.

Excavated: In 1930-33.

Reference: Payne *et alii* 1940.

Study periods represented: EHII. The few houses settled in the EH period were abandoned at the end of EHII according to Hutchinson (in Payne *et alii* 1940, 51). At the same time Hutchinson remarked that EHII pottery might have lasted into the EHIII period at this site, but he did not elaborate on this any further.

Presence of a "destruction" layer: No.

Perachora/Vouliagmeni - Corinthia (B:12)

Geographical setting: A low ridge, 570 x 100 m in size, that separates lake Vouliagmeni from the Corinthian Gulf.

Excavated: In 1965 and 1972.

References: Fossey 1969; 1973; 1974; Attas, Yaffe and Fossey 1977; Hatzipouliou-Kalliri 1983; Attas, Fossey and Yaffe 1987.

Study periods represented: In 1965 three phases were identified, X (late EHI), Y (transitional EHI/II) and Z (possibly early EHII). Phase Y was overlaid by a thick destruction deposit, which might have been caused by an earthquake according to Fossey (1969, 53, 69). Dousougli considers the two last phases, Y and Z, to be of late EHI date (1987, 211 n.114).

In the excavations made in 1972 three phases of EHII were exposed, and as no EHI material was found in this new area Fossey suggested that the settlement moved uphill at the end of EHI or transitional EHI/II, maybe as the result of flooding (1973, 150-151).

Presence of a "destruction" layer: Yes.

Extent of the "destruction" layer: In 1972 several trenches were dug in areas A and B, upslope from the area excavated in 1965. It is not really possible to realted the total extent of the excavated EH site to the destruction layer as the area of the latter is not known. What we do know is that a considerable pile of destruction debris covered a large building, consisting of at least two rooms and a corridor, which was destroyed in a fire at the end of the EHII period (see Fossey 1973, 150-151, pl.135:c).

Dating of the "destruction" layer: From the third and final EHII occupation of the site Fossey partly recovered a large building (1973, 150, pl.135:c; 1974, 19).

Burials: A rock-cut tomb was found ca. 300 meters W of the settlement site. This tomb contained about 10 skeletons and 50 vessels ranging in date from early EHII to late EHII (Hatzipouliou-Kalliri 1983, 369-375, pls.39-41). Another contemporary tomb was apparently found at the western end of the lake, but it was only mentioned in passing by Hatzipouliou-Kalliri (1983, 373 n.25).

Phlius - Corinthia (B:13)

Geographical setting: A long ridge, descending towards the W in several flat plateaus from a high central terrace. This ridge commands the Phliasian plain W of ancient Nemea.

Excavated: In 1924.

References: Blegen 1925; Biers 1969; Alcock 1991.

Study periods represented: Eighty-five test trenches, which were meant to be followed by large-scale excavations, were made in 1924 by Blegen. However, the excavations never took place; besides, the trenches were usually thoroughly confused due to later building activities with the result that Neolithic, EHII and Byzantine sherds were found mixed together (Biers 1969, 443, 445, 457). A very limited area of the site was tested by Blegen, and the conclusion that the site was abandoned after EHII was primarily based on negative evidence by Biers (1969, 458).

Through the recent work of the NVAP (Nemea Valley Archaeological Project) Phlius was intensively walked by survey teams. It has become clear that one definite sherd of EHIII date and at least one difinite MH sherd have now been identified at Phlius, although EHII clearly was the major occupational period for the site (Alcock 1991, 421, 448 fig.11, 449 fig.12, 458). Thus, this site can very tentatively be considered as belonging to the group of sites which might have been inhabited continuously throughout the EHII-EHIII and MH period.

Presence of a "destruction" layer: No.

Aigion - Achaia (C:1)

Geographical setting: This site is located on a high cliff next to the sea overlooking and controlling a coastal road and fertile plain.

Excavated: In 1965-1966 and 1984.

References: Mastrokostas 1967; Papazoglou-Manioudake 1984.

Study periods represented: The pottery found by Mastrokostas in rescue excavations within the modern town is said to include both EH and MH material (Mastrokostas 1967, 214-215), but more exact EH dates are not given.

Rescue excavations were undertaken during 1984 in the NE part of the modern town at the edge of a steep slope bordering the sea. On this occasion two subphases of EHII material were found (including a phase correlated with Lerna III:C) in addition to MH material. At another building plot, adjacent to the former, the excavator recovered material belonging to four subphases of the EHII period and to three subphases of an EHII/III period (Papazoglou-Manioudake 1984, 94-95, 98). This last period EHII/III might correspond to Lerna III:D, but due to the fragmentary information which is published, this is a tentative correlation.

No material which definite can be dated to the EHIII period has been published from Aigion; on the contrary, the most recent excavations indicate a possible hiatus in the occupation of the site during EHIII (Papazoglou-Manioudake 1984, 95).

Presence of "destruction" layers: Yes.

Extent of the "destruction" layers: In no instance is it possible to relate the total extent of the excavated EH remains to the extent of the individual destruction layers. At Aristeidou Street the first building remains, built on bedrock, were dated to the EHII period, of which the last were covered by a destruction layer 0.6 m thick.

At Dodekaneisou Street, adjacent to the previous area, the last EHII building, which is attested by an apsidal wall, was destroyed by fire. Subsequently the site was abandoned for a time before being levelled and rebuilt during the EHII/III phase, which also ended in a thick fire layer.

Dating of the "destruction" layers: In the case of the destruction layer found at Aristeidou Street it is said that this layer contained a seal, which finds a parallel in a seal impression at Lerna (Papazoglou-Manioudake 1984, 94). The date of the Lernaean seal impression (Wiencke 1969, 500, 508 no.192) indicates that the destruction layer at Aigion tentatively can be correlated with Lerna III:C.

At Dodekaneisou Street, the architectural remains datable to the EHII/III phase, were covered by a thick fire layer. It is said that the amount of sauceboats decreased during the last building phase of EHII/III (Papazoglou-Manioudake 1984, 98) and this might indicate, I think, a date corresponding to Lerna III:D.

Apsidal building: Part of one apsidal house was found in the building plot at Dodekaneisou Street. The wall which was found consisted of mudbricks on a stone foundation and was 0.5 m wide and preserved to a height of 0.12 m (Papazoglou-Manioudake 1984, 98). As mentioned above, the house apparently was destroyed by fire at some time prior to the last EHII subphase, which I have tentatively correlated with Lerna III:D.

Teichos Dymaion - Achaia (C:2)

Geographical setting: This is a strategically placed acropolis on the Araxos peninsula at the NW tip of the Peloponnese.

Excavated: In 1962-1966.

References: Mastrokostas 1962; 1964; 1965.

Study periods represented: EHII-III and MH (Mastrokostas 1965, 125-129).

Presence of a "destruction" layer: Yes.

Extent of the "destruction" layer: The excavator recorded a destruction layer, caused by fire, between the EHIII and MH strata (Mastrokostas 1962, 132), but he did not substantiate this statement with any details whatsoever.

Dating of the "destruction" layer: The destruction is said to have happened at the end of the EHIII period (Mastrokostas 1962, 127-132).

"New" features within the ceramic repertory: Many Dark-on-Light Pattern-painted sherds have been found at the site, sometimes depicting triangles or meanders. They are described as coming usually from large vessels with tall necks (Mastrokostas 1962, pl.136:b; 1964, 63, pl.61:b; 1965, 128, pls.149:c, 150:c), which might indicate that they are tankards (they are not illustrated).

Terracotta anchors: One fragmentary terracotta anchor was found in the excavations, but its find context was not recorded (Mastrokostas 1964, 67). Despite this fact Weisshaar suggested that Pattern-painted ware of EHIII date accompanied the anchor, which consequently also was taken as the

date of the anchor (1980, 39). Weisshaar used a reference to Schachermeyr (1971, 393) to support the EHIII date, but Schachermeyr only notes that the anchor was of EH date. Buchholz and Wagner have mentioned that two other probable EH terracotta anchors, presently stored in the Patras Museum, came from this site (1987, 133).

Intramural burial: One EH tomb was found together with some EH vessels (Orlandos 1966, 159, pl.190). Papadopoulos suggested that it was possible to assume that the tomb was intramural (1979, 49), while Sakellariou never hesitated in calling it intramural and tentatively dated it to EHIII (1980, 85-86, 117, 150-151). It is far from clear how we should relate this burial to the EH architecture exposed at the site. Even if the two scholars referred to above have presumed that it was intramural, I put a question-mark behind this identification, due to its unknown find context.

Elis - Elis (D:1)

Geographical setting: This tomb site is located in a large fertile plain on the southern bank of the Peneios river about 15 km from the coast.

Excavated: In 1961.

References: Koumouzelis 1980; 1981.

Study periods represented: A cist tomb, trapezoidal in shape and cut 4 m below the surface, was dated to a late EHII or transitional EHII/III phase (Koumouzelis 1980, 239-240).

Burial: The cist tomb contained two Dark slipped and burnished vessels which Koumouzelis believed were cremation urns (Koumouzelis 1980, 55-63, 97-98, 219, 239-240, figs. 18:1-2, pls. 23-26, 61-62), despite the fact that no bones were found in them. The tomb should, in my view, be considered to be extramural as no settlement site was found in connection with it.

Kostoureika - Elis (D:2)

Geographical setting: The site is located on a low hill on the edge of the flood-plain of the Peneios valley, about 18 km from the sea.

Excavated: In 1969.

Reference: Fraser 1970.

Study periods represented: EHII pottery, but no architectural remains, was found under a Hellenistic farmstead (Fraser 1970, 14-15).

Presence of a "destruction" layer: No.

Strephi - Elis (D:3)

Geographical setting: A very low hill located in the middle of a flat section of the Alpheios valley, 2 km N of the Alpheios river and about 1 km W of its tributary Kytherios. The site is about 11 km from the sea.

Excavated: In 1967-1968.

References: Choremis 1968; 1969; Koumouzelis 1980.

Study periods represented: The EHII period was divided into three subphases, corresponding to changes within the architecture as well as in the pottery assemblage. Of these phases the middle phase was destroyed in a conflagration according to Koumouzelis and the last phase was flooded, whereupon the site was abandoned (1980, 35-36). As in the case of the New Museum site at Olympia, Strephi lacks section drawings (Koumouzelis 1980, 19), which makes the chronological scheme somewhat uncertain. Despite this drawback Koumouzelis' division of the EHII period into three phases seems to be more or less sound.

At one stage Zachos said that it was impossible to correlate the pottery from the site with other contemporary sites, but later on he found parallels in the Strephi material for the two EHII subphases he had defined at Ayios Dhimitrios (Zachos 1987, 281-282)! This correlation seems to bear out the soundness in Koumouzelis' chronology, as Zachos phase IIa (transitional EHI/II) is paralleled by phase 1 at Strephi and Zachos phase IIb (advanced EHII) is paralleled by phase 3 at Strephi.

Presence of "destruction" layers: Yes.

Extent of the "destruction" layers: It is not possible to correlate the total area of excavation with the extent of the destruction layer. Koumouzelis said that the first destruction was evidenced by ash everywhere and by the burnt superstructures of house V and building VI. Then again, the last phase of the EHII period was covered with a 0.15-0.6 m thick pebble-layer created by a flood (Koumouzelis 1980, 29-36, 47).

Dating of the "destruction" layers: Two structures, house V and building VI, and a series of bothroi near wall 3 belong to the second phase of EHII as defined at the site by Koumouzelis (1980, pls. 7-8, fig.3:a). Phase 2 pottery is characterized by glazed bowls and sauceboats on low pedestals or

ring bases (Koumouzelis 1980, 45, 70-72, 220, pl.31, fig.7:1, pl.55, fig.4:6-9). The sauceboats are similar to Lerna type III sauceboats and the phase is seen by Koumouzelis as contemporary with Ayios Kosmas (phase 1), the levels below the houses at Zygouries and Korakou, and Lerna III before "the House of the Tiles" (1980, 220). The parallels mentioned by Koumouzelis might indicate that the destruction occurred during the EHII:C period (when compared to Lerna), which is the date given recently by Wiencke for some pottery found under a house floor at Zygouries. Then the site probably was flooded during EHII:D (as compared to Lerna).

Intramural burials: One, possibly two, pithos burials were recorded from the site. One of these burials consisted of pithos fragments containing some adult human bones and was found at the bottom of a bothros near House V. The pottery found associated with the tomb indicates a date in the first or early second phase of EHII (Koumouzelis 1980, 33, 48, 51-54, 117 n.10, figs.1-2, pls. 16-17, 19-21). The other possible pithos burial was found in trench C, close to the Kytherios river, and about 8 m from EHII structural remains found in trench F3. The latter tomb was called intramural by Koumouzelis (1980, 33, 51). In my view the first tomb, if it is a tomb, clearly should be considered intramural as it was found close to house V, whereas the second tomb is less convincingly intramural as it was found eight meters from the nearest EH architecture.

Olympia/the New Museum - Elis (D:4)

Geographical setting: The site is located in a small valley E of the Kladeos river. It lies NW of Mount Kronion and ca. 400 meters N of the sacred Altis.

Excavated: In 1959-1964.

References: Yalouris 1964; Koumouzelis 1980.

Study periods represented: Some EHII pottery material was found, but not enough to believe in a continuous habitation according to Koumouzelis (1980, 129, 166, 213, 221). However, plenty of EHIII material was recovered which has been divided into two subphases (Koumouzelis 1980, 132-133). Most of the EHIII pottery has been correlated with Lerna IV:1-2 (Rutter 1982, 484). Indications that the site was inhabited during the MH period have been recorded by Yalouris (1960, 125-126, pl.116:b; 1964, 176).

Presence of a "destruction" layer: Yes?

Extent of the "destruction" layer: Koumouzelis has not given any details about the destruction layer. She merely notes that a layer with traces of fire and scattered walls was found at the site (1980, 132-133, 223-227).

Dating of the "destruction" layer: Koumouzelis divided the EHIII pottery found at the site into two subphases, allegedly separated by a "destruction layer" (1980, 132-133, 223). Comparisons with the stratification at Lerna IV, and close typological similarities between the Lerna material and the two Olympian sites, have shown not only that the Altis material predates the New Museum site (contrary to Koumouzelis' view), but also that the New Museum material can be correlated with Lerna IV:1-2 material (Rutter 1982, 483 n.35, 484; 1983a, 340). Thus, Koumouzelis' division of the EHIII period into two subphases, based on the pottery sequence, has been shown to be more imaginary than real, as both these subphases included pottery equivalent in date to Lerna IV:1-2.

How then shall we interpret the "destruction layer", which she allegedly had seen between the two phases and which she implied was followed by terracotta anchors, tumuli and the Dark-burnished incised ware (Koumouzelis 1980, 151-174, 223-225)? Both the tumulus and the Dark-burnished incised ware (so-called Finely Incised and/or Impressed ware) have been dated to early EHIII (see below), and the terracotta anchors have turned out to be useless as indicators of a particular date (see Chapter 5.3). Furthermore, pottery from both subphases have shown signs of secondary burning.

When all the facts enumerated above are taken into consideration, I draw the conclusion that if a "destruction layer" really existed at the site we should date it to some time during the EHIII:1-2 period; a more precise dating is unfortunately not possible. Moreover, I have indicated the uncertainty about this so-called destruction layer by putting a question-mark after the affirmative answer under the heading "presence of a destruction layer"; but Müller has uncritically accepted the suggestion made by Koumouzelis that the tumulus, or tumuli, were preceded by a fire destruction at the beginning of EHIII (1989, 34).

Apsidal buildings: Parts of two apsidal houses were exposed in trenches B 1960 and N 1963, and there are possibly remains of two more in trench H 1963 (Koumouzelis 1980, 133-135, pls.78-80, fig.25). These architectural remains cannot be dated closer than to sometime during EHIII:1-2.

"New" features within the ceramic repertory: The EHIII:1 phase, as defined by Koumouzelis, contained Dark-on-Light ware in the following shapes; tankards, jars, one-handled cups, ouzo cups, shallow bowls (1980, 141-151, 223, figs.29, 30:1-2, 32:1-3,6, 33:7-8, 37:2, pls.90-91, 93). Fragments

of tankards and jars in Dark-on-Light ware were found where signs of burning were noticed by Koumouzelis (1980, 145, fig.31:2) and these sherds are dated to early EHIII by Rutter (1982, 484 n.39). There are also fragments of bowls, jars and a shoulder-handled tankard of early Dark-on-Light type, but these are not explicitly recorded as coming from the burnt layer (Koumouzelis 1980, 143, 147, figs.29, 32.1-3, pls.82, 87:b,d; Rutter 1982, 484 n.39).

The EHIII:2 phase was represented primarily by Slipped and Burnished ware, and some of this pottery had, as in the case of some subphase 1 sherds, traces of secondary burning (Koumouzelis 1980, 151-152, fig.34:1, pl.89:c (one-handled cup); 153, fig.34:5, pl.96 (ouzo cup) and 158; fig.40:7). Dark burnished or so-called Finely Incised and/or Impressed ware were recorded in the following shapes; one-handled, shoulder-handled bowls (1980, figs.33:10, 35:3, 38:5,6,8, pls.108:f,l,o, 109), a two-handled neck-handled tankard (1980, fig.38:4, pl.108:g), a bowl with horizontal handles or lugs (1980, fig.33:9, pl.108:n). All these shapes find parallels among Lerna IV:1-2 material (Rutter 1982, 463 table 2, 472, 475-476, 479).

Gray Minyan, i.e. Fine Gray-burnished, ware was found by Koumouzelis, who mentioned that this gray ware came from the early layers together with Smear ware and Pattern-painted ware (1980, 155, 224). But she did not draw the conclusion that it actually was of an early EHIII date itself (Rutter 1982, 485 n.44). The Fine Gray-burnished pottery found at this Olympian site is paralleled in deposits of Lerna IV:1-2 date (Rutter 1983a, 337 table 3, 340).

Terracotta anchors: Four terracotta anchors were found at the New Museum site. One of them was unstratified while two came from the "destruction level" in Trench D and had traces of fire on them. The fourth anchor was found in trench K 1963 (Koumouzelis 1980, 176-178, fig.41:1-4). The arm of a fifth anchor was found in the tumulus (Koumouzelis 1980, 131, 140, 225). It is quite clear that these anchors should be dated to EHIII:1-2 like the pottery found at the site.

Tumulus: One tumulus was found in the area of the E court of the New Museum. This tumulus consisted of 2 or 3 courses of riverstones in an elliptical form, about 3 x 4 meters in size. Around this nucleus of stones a row of stones formed a 5 m wide circle, outside which there was a 1-2 m wide pebble floor. The stone core was covered by a mound of soil. Traces of fire were found in the centre of the cairn, which together with pithos fragments and burnt bones supposedly indicated a cremation placed in a pithos. A fragmentary tankard in Dark-on-Light ware was recovered at

the foundation level of the tumulus, and in the tumulus itself a Slipped and Burnished kantharos and a terracotta anchor were found (Yalouris 1964, 174-175 fig.1, 176; Koumouzelis 1980, 131, 139-140, 154, 225, figs.28, 34:2, pl.97).

Koumouzelis dated the tumulus to the end of EHIII or transitional EHIII/MH period, because of the terracotta anchor inside the tumulus (1980, 140), but this date must be revised. Rutter mentioned that the Olympian kantharos, referred to above, compares well with Lerna IV:1-2 examples (1982, 483 n.37). This indicates, I think, that the tumulus likewise can be synchronized with Lerna IV:1-2. Such a date was also recently suggested by Müller (1989, 16-18), who referred to Rutter's dating of the surrounding habitat to a similar date (Müller uses a mistaken reference in this instance; Rutter 1983, 340 should read 1982, 484).

Some traces of another tumulus, referred to as a "possible tumulus", were found W of the one described above (Koumouzelis 1980, 127, 139-140, fig.28), but no further details are given. It is nevertheless included in Müller's paper on tumuli (1989, 16, 37 no.29).

General comments: Koumouzelis points out in her thesis that no section drawings existed from either Strephi or the New Museum site (1980, 19). She drew the information about the stratigraphy from daybooks and written notations on the boxes of material sampled at the sites. This is an obvious drawback in her work, which renders her conclusions uncertain and occasionally, as in the case of the "destruction layer" mentioned above, wrong.

Olympia/the Altis - Elis (D:5)

Geographical setting: This site is situated in the Alpheios valley, NE of the confluence between the Alpheios and the Kladeos rivers.

Excavated: Extensively since 1875.

References: Weege 1911; Dörpfeld 1935 (vols.I-II); Kyrieleis 1990.

Study periods represented: The "MH period", also called the "Vormykenische Zeit", consisted of two prehistoric layers, divided by a layer of sand. The last prehistoric layer was represented by the apsidal buildings 2, 3, 5, 6 and three pithos burials (Dörpfeld 1935, I 66 fig.1, 81-82 fig.8, 83-84, 94, 101-102). Above this layer there was a sand/clay layer (Weege 1911, 185; Dörfeld 1935, I 82 fig.8, 83-84, II pl.6-8).

Some EHII material has been found in the stadium area (Kunze 1967, 13 figs.10-11, 14, 23 fig.13), but nothing from this period was found under the apsidal buildings within the Altis according to Koumouzelis (1980, 98-100, 246-247). However, the most recent excavations, carried out between 1987-1989, indicate that the tumulus, the so-called "Pelopeion", should be dated to the EHII period (Kyrieleis 1990, 184, 186).

Contrary to Dörpfeld's dating of the apsidal houses to the MH period, Koumouzelis suggested that these were of EHIII date, but admitted that they might have been used into the MH period and that they eventually were abandoned at the time of the introduction of Matt-painted ware, as only a few (= two) such sherds were recovered in the Altis (1980, 193, 199-200, 207, pl.133:h-i). Koumouzelis based her MH date on the assumption that the Gray Minyan kantharoi which were found in the apsidal houses were of MH date (1980, 228). However, Rutter has synchronized the material from Houses 2, 3 and 6, as well as the three burials exposed by Dörpfeld, with Lerna IV:1 (1982, 483, 485 n.44). The only later building was the apsidal House 5 which he correlated with Lerna IV:3 (Rutter 1982, 483 n.37).

Koumouzelis stated that much coarsely incised and plain Adriatic ware was found in the Altis (1980, 197). One incised strap handle, possibly of an Adriatic jar, was suggested by Rutter to have come from the floor of House 3, thus implying that this ware occurred at the beginning of the EHIII period in the Altis, although evidence from the New Museum site nearby implied that it occurred in a late phase of the EHIII period here as well as at Lerna (1982, 483 n.37).

Mallwitz and Herrmann dated an "amphora" found in House 3 (Dörpfeld 1935, II pl.22:4) to the MH period (1980, pl.1:2), whereas this same vessel was identified as a neck-handled tankard of EHIII date by Rutter (1982, 481 table 3, 483). Herrmann has several times suggested that the "MH settlement" was destroyed by a natural catastrophy, possibly a flood, which he inferred by the sand layer covering the prehistoric layers (1962, 25 n.101; 1987, 432 n.40).

To date, we cannot decide for sure whether the site was inhabited or not during the MH period as there are so many inconsistencies concerning the alleged MH material, but at present I assume that the site was deserted after the EHIII:3 period.

Presence of a "destruction" layer: No.

Apsidal buildings: Apsidal Houses 2, 3, 5 and 6 were considered to be the earliest buildings at the site by Dörpfeld (1935, I 81, II pl.17). House 2 was 11 x 4 m in size and oriented north-south with the apse in the south. The

east wall and half of the apsis were exposed (Dörpfeld 1935, I 85 fig.9, 86). House 3 was 10 x 3.7 m in size and aligned with House 2. A stone foundation, 0.5 m wide, supported a superstructure probably made of wattle-and-daub (Dörpfeld 1935, I 81-82 fig.7-8, 83, 97). Part of the northern end of House 6 was preserved, which showed that this was not a true semicircular apse, but rather a straight wall with rounded corners (Dörpfeld 1935, I 89 fig.11).

The dimensions of House 5 are unknown as only part of the west wall and the apsis remained. It is oriented northeast-southwest with the apse in the southwest. The floor level is 0.33 m higher up than the floor level of House 3 (Dörpfeld 1935, I 76 fig.3, 77 fig.4, 88, II Beilage 2), and this fact coupled with the find in House 5 of a knobbed shoulder-handled cup (Weege 1911, 173 no.37), made Rutter conclude that House 5 should be dated to a phase corresponding to Lerna IV:3, i.e. it was younger than Houses 2 and 3 (1982, 483 n.37). House 5 was apparently demolished at the end of the EHIII period and subsequently built over by a rectangular house, likewise dated to late EHIII (Kyrieleis 1990, 184).

Apsidal House 4, of which two-thirds was excavated by Weege in 1908 (Dörpfeld 1935, I 90-91 fig.13, II Beilage 4b, pl.17) and which until the late 1980s was dated to the Geometric period (see Rutter 1982, 484 n.40), has now been shown to belong to the EHIII period and to be contemporary with House 5 (Kyrieleis 1990, 186-187).

"New" features within the ceramic repertory: Concerning the presence of Pattern-painted ware at the site, Rutter has stated that a Dark-on-Light shoulder-handled amphora from House 3 was misidentified by Weege as a Matt-painted MH amphora (1982, 482 n.34). Overall, only a miniscule amount of Pattern-painted ware was found at this site according to Rutter (1982, 483).

Neck-handled tankards, with one or two handles, made of Finely Incised and/or Impressed ware were also among the finds in House 3 (Weege 1911, 165-167, pl.5:5-8) together with one rim-handled tankard and one shoulder-handled bowl (one-handled) made of the same type of ware (Weege 1911, 167, 170-171, pl.5:1-4). Signs of the fast wheel were seen, according to Koumouzelis (1980, 164), on two of these Finely Incised and/or Impressed vessels, i.e. on one neck-handled tankard and one shoulder-handled bowl (Weege 1911, 172 figs.15-16, pl.5:7-8). Rutter considers this pottery to belong to a very early stage of EHIII (1982, 481 table 3, 483-484).

Fine Gray-burnished ware with finely incised or impressed decoration constitutes a type of ware which is distinctive for Olympia, besides

Pelikata on Ithaka (see Rutter 1982, 472-473; Maran 1987, 77). Three kantharoi, executed in this ware, were found at Olympia and have been correlated with Lerna IV:1 by Rutter (1983a, 337 table 3, 340 n.33).

Other examples of Fine Gray-burnished pottery, of unknown find context, which have been recorded by Rutter are two Bass bowls and one pedestal foot. This material has been dated to a phase largely contemporary with Lerna IV:1 (Rutter 1983a, 337 table 3, 340).

A "ritual tumulus": The tumulus found at the site, called the "Pelopeion", has been quite controversial and I will therefore discuss it at some length. Dörpfeld said that House 5 was cut by a row of stones, the kerb-wall, which were laid around a natural mound artificially enlarged to a diameter of 33 m. This feature was called the "Pelopeion" or Pelops' tomb and dated to the 12th century B.C. by him (1935, I 76 fig.3, 77 fig.4, 78, 118-124, II Beilage 6:b-c). The stones of the kerb-wall were found at levels ranging between -1.81 and -3.51 m (1935, I 119 fig.21, 120 fig.23, 121 fig.24), but no stones were found in connection to House 5, which had its floor level at -1.67 m.

The anomaly, that the so-called MH House 5 was found at a much higher level than the "Mycenaean tumulus", Herrmann explained by inferring a foundation trench for the kerb-wall, which reached far below the natural hillock, at the same time destroying part of the MH House 5 (1972, 54). However, more recently he confessed that the Mycenaean date of the "Pelopeion" is impossible to prove (1987, 426 n.6).

Mallwitz (1972, 135-137) has correctly pointed out that more than 3/4 of the kerb-wall only was conjectured by Dörpfeld. He suggested that the "kerb-wall" could be a natural phenomenon and that the "Pelopeion" actually never existed; it was supposedly altogether a creation by Dörpfeld. Koumouzelis, on the other hand, believed that the "Pelopeion" was a funerary tumulus of MH date and that the pithos burial no.1 was associated with it (1980, 225).

New excavations in 1987-1989 by the German Archaeological Institute have supplied new information about the "Pelopeion". The tumulus was originally constructed on a natural hillock with the ground sloping towards the south and it is older than House 5 since it was found about 1 meter underneath this house. A few EHII sherds have been found in the filling of the tumulus, which indicate a tentative date of EHII for it (Kyrieleis 1990, 184 fig.10, 186). Additional work carried out in 1990 has produced new evidence for an EHII date (French 1991, 31).

In 1988 part of a stone wall was found within the tumulus, which is the oldest wall found so far at the site according to Touchais (1989, 615). This might imply that the tumulus in the Altis had a function similar to that of the one found over the "House of the Tiles" at Lerna, and that is why I would like to refer to it as a "ritual tumulus".

Intramural burials: Three pithos burials were found near the apsidal houses by Dörpfeld. Burial no.1 was found at an elevation of -2.11 m within the area of the "Pelopeion" and just to the southwest of House 5. This was a child burial accompanied by two plain vessels, one askos and one kantharos (Dörpfeld 1935, I 76 fig.3, 77 fig.4, 94 fig.15, 95 fig.16), which are correlated with Lerna IV:1 material (Rutter 1982, 481 table 3, shapes 7 and 10, 483).

Burial no.2 was found about 20 meters east of House 3, but lacked offerings (Dörpfeld 1935, I 95 fig.17, 96); consequently it cannot be dated. Burial no.3 was exposed about 20 m northwest of House 5 in 1880, but was not recognized as a burial at that time. One plain askos was associated with the burial (Dörpfeld 1935, I 96 fig.18-19) and is synchronized with EHIII:1 material at Lerna (Rutter 1982, 481 Table 3, 483).

Between the years 1987-1989 six additional pithos burials have been found, but the details given about them are very fragmentary. One child burial was found 0.5 meters above the kerb-wall of the tumulus. It was accompanied by a jug which Kyrieleis dated to the end of the EHIII period (1990, 184). Touchais mentioned that two of the tombs (probably of the six mentioned by Kyrieleis) were of final EHIII date, dated by the grave offerings consisting of two askoi and one kantharos (1989, 615). Overall, five intramural child burials datable to the EHIII period have until today been exposed in the Altis site at Olympia.

Makrysia - Elis (D:6)

Geographical setting: The site is located on the lowest spur of a mountain ridge E of the Selinounta river and about 8 km from the sea.

Excavated: In the 1950s and 1960s.

Reference: Koumouzelis 1980.

Study periods represented: EH and MH pottery material was apparently recovered in the excavations (Koumouzelis 1980, 251) and both EHII and MH material has been reported as surface finds at the same site (Hope Simpson and Dickinson 1979, 99).

Presence of a "destruction" layer: No.

Kleidi - Elis (D:7)

Geographical setting: The site is found at 25 m a.s.l. on a low isolated acropolis close to a coastal lagoon and about 1 km from the sea.

Excavated: In 1908 and 1981.

References: Dörpfeld 1908; Papakonstantinou 1981.

Study periods represented: In the excavations made in 1908 Dörpfeld recovered what he called prehistoric handmade and wheelmade pottery, paralleled at Pylos and Olympia (1908, 321). It is not possible to date this pottery, but as surface pottery dated to EHII-EHIII and MH periods has been recorded (Hope Simpson and Dickinson 1979, 101) it is a fair assumption that Dörpfeld found similar pottery in his excavation. A MH tumulus has been excavated by Papakonstantinou (1981, 148-149).

Presence of a "destruction" layer: No.

Tumulus: A MH tumulus, 5.5 m in diameter and containing multiple burials, was excavated at a distance northeast of the EH settlement site (Papakonstantinou 1981, 148-149, pl.85:a).

Ayios Dhimitrios - Elis (D:8)

Geographical setting: A steep flat-topped spur which is connected with the mountain Missokataracho in the N and overlooking the fertile valley of the Tholon river, 7 km from the seashore. The flat area is 60-120 m x 30-70 m and the estimated size of the EH settlement is 6000 m^2 (Zachos 1987, 287).

Excavated: In 1977-1978 and 1980-1983.

References: Zachos 1986; 1987.

Study periods represented: EHIIa (transitional EHI/II), EHIIb (advanced EHII) and early MH (Zachos 1987, 45-46). Thus, there seems to be a hiatus between the advanced EHII phase and an early MH period, i.e. during the EHIII period.

Presence of a "destruction" layer: Yes.

Extent of the "destruction" layer related to the excavated area: Twenty-five trenches were made by Zachos (1987, 36-40), covering a total area of about 480 m^2. The excavation data from House A, a rectangular building consisting of three rooms, suggest that the house was violently destroyed as the floor of room III, estimated to be 12 m^2 in size, was covered by a

thick accumulation of constructional debris mixed with buried artefacts (Zachos 1987, 161-166, 288, 292, 302).

Dating of the "destruction" layer: The destruction layer was dated by the pottery material to the EHIIb phase by Zachos, who tentatively synchronized this phase with the time of "the House of the Tiles" at Lerna, with the developed EHII phase at Tiryns (strata VI-VII of the 1978-79 excavations) and with the third stratum at Strephi (1987, 280-282, 284-285).

Moreover, Zachos synchronized the pottery found in the destruction layer in Room III with similar material from Voidokilia (1987, 302-303 n.1), which according to the excavator of that site had fallen off a shelf (Korres 1979, 153, fig.2:g-d, pls.111:a-b, 113:d-e). Zachos interpreted this as a sign of sudden destruction at Voidokilia and asked "could the same event have destroyed both settlements?" hinting at a natural phenomenon like an earthquake behind these destructions (1987, 303 n.1).

Asea - Arcadia (E:1)

Geographical setting: An acropolis site with a flat plateau, 240 x 120 m in size and elevated 54 m above the surrounding ground. The site is located between Megalopolis and Tripolis in southern Arcadia.

Excavated: In 1936-1938.

References: Holmberg 1944.

Study periods represented: The excavator grouped the EH pottery into two groups, either mixed Neolithic-EH or pure EH. The mixed stratum was 0.9 m thick while the pure EH layer was 0.2-0.4 m thick. MH pottery was recovered in a stratum above the ash-layer covering the youngest EH material (Holmberg 1944, 11, 61-62, 89-90). The conventional terminology of EHII-EHIII was unfortunately not used by Holmberg.

Howell identified some EHII sherds in the Asea material (1970, 109), while Donovan mentioned that both Dark-on-Light and Light-on-Dark ware had been found at the site (1961, 68-90, 101). A jar with incised pattern, which Holmberg had found in the destruction layer (1944, 88 fig.89:a), was recognized by Rutter as a flask of Finely Incised and Impressed ware, corresponding in date to Lerna IV:2 (1982, 472, 480).

Presence of a "destruction" layer: Yes.

Extent of the "destruction" layer related to the excavated area: About 20 x 60 m or 1200 m^2 were excavated in a connected area on the western side of the hill (Holmberg 1944, 5). An ash-layer, 0.15-0.18 m thick, which

forms a boundary between the youngest EH and the MH period was found over the entire plateau (Holmberg 1944, 11, 89, 179-180, pl.4). Houses A and K, together covering an area of about 37 m^2, are said to have been destroyed in the great catastrophe at the end of the EH period (Holmberg 1944, 8-12 figs.7-8, pl.6).

Dating of the "destruction" layer: The excavator was of the opinion that the destruction happened at the end of the EHIII period, but that this period eventually lasted into the MH period when compared to the Argolid (Holmberg 1944, 11, 179-180). However, Caskey considered the stratigraphy inadequate and refrained from trying to date the destruction layer (1960, 287, 301; 1971, 789). Donovan also made a comment about the unclear stratigraphy and stated that EH and MH pottery were mixed above, as well as below, the ash-layer (1961, 5), but he did not substantiate this statement.

The fact that Gray Minyan ware occurred in the oldest MH layer before Matt-painted ware appeared was interpreted by Wünsche to mean that Gray Minyan ware itself should be dated to the EHIII period; consequently he dated the destruction layer to the EHII period (1977, 31, 101 n.94). Hope Simpson and Dickinson also dated the destruction to the end of EHII (1979, 82), but they did not give any reasons as to why they dated it in this way.

Only one vessel can with certainty be said to have been found *in situ*, and that is the sauceboat which was found on the floor of House A (Holmberg 1944, 10, 12, 70 fig.73:g, 73). The presence of this sauceboat in a house said by the excavator to have been destroyed in the great catastrophe at the end of EH was used by van Royen and Isaac as evidence when they dated the destruction layer to the EHII period (1979, 13). But in this case the sauceboat merely functions as a *terminus post quem* for the ash-layer as younger EH material was found in the destruction layer.

At least one vessel was said to have been found in the "burnt layer between Early Helladic and Middle Helladic", namely the EHIII:2 flask mentioned above. Thus, the youngest identified vessel found in the destruction layer is of EHIII:2 date, which I consequently suggest as a tentative date for the destruction layer at Asea (incidentally, Hood (1986, 59) noted that the site "may have suffered destruction by fire about the end of EHIII", referring to the same flask).

Apsidal buildings: A 2.5 m long, slightly curved wall, which could be part of an apsidal house from the oldest MH period, was exposed north of the MH house (Holmberg 1944, 12-18, pl.6).

"New" features within the ceramic repertory: Donovan has identified sherds of both Dark-on-Light and Light-on-Dark pottery of EHIII date at the site (1961, 5-6, 68-101), but their find contexts are not known and they are probably not stratified.

We saw above that a flask of Finely Incised and Impressed ware is correlated with material from Lerna IV:2 (see Rutter 1982, 472, 480).

The fact that Gray Minyan ware occurred in the oldest MH layer before Matt-painted ware appeared (see Holmberg 1944, 89-90) was interpreted by Wünsche as showing that Gray Minyan ware itself should be dated to the EHIII period and not to MH (1977, 31, 101 n.94). But, Rutter has not included the Gray Minyan ware found at Asea in his study of the EHIII predecessor of this ware, because in his view the published sherds did not have to be as early as EHIII in date (1983a, 336 n.21).

Terracotta anchors: One terracotta anchor, whose arms were both broken off, was found in a late EH layer according to Holmberg (1944, 115 fig.111:5, 117). This anchor was dated to the EHII period by Banks (1967, 636), whereas Buchholz and Wagner dated it to the EHIII period (1987, 133). However, I do not believe that it is possible to date it to any specific subphase of the EH period because of the disturbed stratigraphy at the site.

Shaft-hole hammer-axes of stone: Two shaft-hole hammer-axes were found by Holmberg in a stratum just below the ash-layer (1944, 122-123 fig.115:11-12). They are both considered to be of EHIII date by Banks (1967, 108) and Howell (1973, 80). If we assume an EHIII:2 date for the ash-layer (as suggested above), these hammer-axes may be given a similar date as *terminus ante quem*. Two additional shaft-hole hammer-axes were found in the MH layer (Holmberg 1944, 123 fig.115:14-15), but were mistakenly recorded as of EHIII date by Hiller (1982b, 198).

Intramural burials: Twenty-nine MH graves were exposed, mostly simple earth pits, but cists and pithos burials were also found. In eight instances the graves were found under the house-floors. Of the identifiable skeletal remains 14 graves contained adults and 10 were child burials (Holmberg 1944, 21-26, 29-30, pl.6). I believe that all of these tombs can be considered to be intramural burials as MH house-walls are seen near every tomb (see Holmberg 1944, pl.6).

Chersonisi - Arcadia (E:2)

Geographical setting: A small rocky promontory halfway down the coast of the Bay of Astros.

Excavated: In 1962.

Reference: Karagiorga 1963.

Study preiods represented: EH and MH material was recorded by Karagiorga (1963, 89-90) and the character of the EH pottery mentioned by the excavator indicates an EHII date in my opinion (none of it is illustrated).

Presence of a "destruction" layer: No.

Ayioryitika - Arcadia (E:3)

Geographical setting: This is a low mound site not far east of Tripolis.

Excavated: In 1928.

References: Blegen 1928b, 1930.

Study periods represented: Stratified EH II pottery was found in the excavations made by Blegen, but this material had been disturbed before being published (Howell 1970, 90 site 20, 109).

Presence of a "destruction" layer: No.

Steno

Recent preliminary reports have mentioned that six metal kilns, probably of EH date, were found in the village area of Steno, 2 km west of Ayioryitika. One of the kilns has been fully exposed and measures 14 x 2 meters, is made of mudbrick and consists of two ellipsoidal chambers. Only coarse ware was found, which makes the dating difficult (Spyropoulos 1982, 120-121; French 1991, 26).

Pylos - Messenia (F:1)

Geographical setting: Most of the EH material was found on a terrace 500 meters SW of the acropolis, while stratified MH material has been found around the NE end of the acropolis. Unstratified MH material was found

off and on the acropolis. The site lies ca. 6 km from the Ionian sea and 9 km NNE of the Bay of Navarino.

Excavated: In 1939, 1952-1966.

Reference: Blegen *et alii* 1973.

Study periods represented: The first stratified material was dated to a transitional EH/MH period by Lord Taylour, who said that the datable sherds were either EH or MH in date (1973, 219-224). In my opinion much of this material should be dated to the EHII period (see below). A faint trace of the EHII period was also found on the acropolis in the form of an hour-glass pestle of stone (Blegen *et alii* 1973, 6-7, fig.104:20). Otherwise the earliest building remains on the acropolis seem to be of MH date as evidenced by three successive MH walls of which the earliest was founded on stereo (see Blegen *et alii* 1973, 63-64, figs.93-94, 159, 301).

Presence of a "destruction" layer: No.

Apsidal buildings: Two probably apsidal buildings, one superimposed on the other, were excavated in 1958 by Lord Taylour. Wall B, the curved wall of the lower building, which could have been circular if not apsidal, was ca. 0.5 m thick. Two hearths and a floor were associated with this building. Wall A was probably the crosswall of this house (Taylour 1973, 219-224, figs.275-277; 347-350).

More than 90% of the collected pottery consisted of pithoi with taenia bands of finger impressions, but a vertical handle fragment made of four sticks of clay was also found (Taylour 1973, 224, figs.278, 279:5), which finds close parallels in EHII handles at Eutresis (Goldman 1931, fig.150:3-4). Lord Taylour concluded that, even though EH pottery was found in connection with the exposed buildings, the presence of some Black Minyan sherds indicates a transitional EH/MH date for these houses (1973, 220, 222-223). However, Leekley and Noyes considered the two apsidal or circular houses to be of EH date (1976, 123).

Most of the pottery which was recovered at the site, i.e. the pithoi fragments with taenia bands, are typical of the EHII period; moreover, the vertical handle, in my view, also indicates an EHII date. The presence of some MH sherds in the lower strata is easily explained, because very little soil was left above the architectural remains, which meant that the pottery was easily disturbed by later activities. The upper or younger apsidal house represented by Wall M (Taylour 1973, fig.275) was even visible on the surface before the excavations began. Due to all these circumstances I have tentatively dated the two apsidal houses at Pylos to the EHII period.

Shaft-hole hammer-axes of stone: One shaft-hole hammer-axe was found in the upper layers in the Deriziotis property (Taylour 1973, 223-224, fig.279:16). An EHII date seems unlikely as this would make it by far the oldest shaft-hole hammer-axe found in the Peloponnese; moreover, we know that the artefacts found by Lord Taylour were few and not well stratified. As MH pottery definitely was found and nothing of EHIII date, I suggest that the shaft-hole hammer-axe should be dated to the MH period.

Papoulia - Messenia (F:2)

Geographical setting: This is a tumulus site, named Ayios Ioannis, about 1 km W of the village Papoulia. It is located ca. 8 km from the sea and 4 km SE of Pylos.

Excavated: In 1954-1955.

References: Marinatos 1954; 1955; Petrakos 1989.

Study periods represented: EHII? and MH. It is said that the MH tumulus at Papoulia was constructed in the same way as the tumuli at Routsi and Voidokoilia (Petrakos 1989, 28), which means that it was built on top of an EH settlement. As EHII material seems to be lacking in Messenia and both Routsi and Voidokoilia are known to have been settled in the EHII period, I assume that the EH settlement at Papoulia likewise should be dated to the EHII period. However, this date is tentative and cannot be corroborated until more material has been published.

Presence of a "destruction" layer: No.

Tumulus: This is an oval-shaped tumulus about 13 m in diameter, which had a central cist tomb of apsidal form (Marinatos 1954, 311-316; 1955, 254-255). Overall 15 burials were found in the tumulus (see Pelon 1976, 76-77; Müller 1989, 36 no.5). Marinatos at one point considered this type of tumulus to be of a transitional EHIII/MH date (1954, 313), but elsewhere he said the tumulus was of MH date (1954, 312 text under fig.9).

Several scholars have dated the tumulus to the EHIII/MH period (Pantelidou 1970, 125; Müller 1989, 17 fig.9:5, 18, 20, 36 no.5; at the same time Müller does not exclude the possibility that it is of EHIII date), while others have dated it to the MH period (Hammond 1972, 259; 1973, 20; 1976, 126 n.89; Sakellariou 1980, 96, 156).

The controversy concerning the date was caused by the presence of an ovoid jar, found by chance in the tumulus before the actual excavations began. Marinatos considered this vessel to be of late EH date, but remarked that the shape lived on in Messenia for a long time (1954, 312 fig.9). Concerning the ovoid form in general, Caskey has said that it was popular during the EHII period, but seemed more or less lost during EHIII, only to appear again during the MH period (1986, 24). Consequently, as the tumulus certainly is not of EHII date, I think that a MH date is most likely not only for the ovoid jar, but also for the tumulus in which it was found.

General comments: It has been argued that EHIII material (especially Pattern-painted ware) is lacking in Messenia, which according to Rutter could mean that the EHII pottery assemblage lived on into the MH period in this part of the Peloponnese (1979, 13, 15, 24 n.34, 25 n.38; 1988, 74). But this explanation is considered to be "a counsel of despair" by Dickinson who suggests that a hiatus in occupation followed the EHII period in Messenia (1982, 133).

Voidokoilia - Messenia (F:3)

Geographical setting: The site is located by the sea on the high and rocky promontory of the northern branch of the small Voidokoilia Bay.

Excavated: In 1977-1983.

References: Korres 1977-1983a-b, 1987-1988, 1990. Numerous preliminary reports have been published by Korres. These are not always easy to correlate with each other, but a good synthesis about the excavations of the site was recently published (Korres 1987 in German, 1990 in English).

Study periods represented: EHII and MH. An EHII settlement was superimposed by a MH tumulus, which had destroyed large parts of the earlier settlement. The EH material was recovered in several trenches sunk below the tumulus and in larger connected areas outside the tumulus. Korres has divided the EHII period into three subphases, EHIIA-C, and suggested that some traces were found also of the EHIII period (1990, 5). However, I do not think that the faint traces at Voidokoilia corroborate the belief in an EHIII presence (see below), especially in the light of the total absence of EHIII material at other sites in Messenia. The latest EHII material at the site has tentatively been correlated with Lerna III:D material.

Presence of a "destruction" layer: Yes.

Extent of the "destruction" layer related to the excavated area: The EHII settlement is estimated to have covered 30 x 30 meters, or 900 m^2, where

about 15 houses were uncovered (1990, 3). The excavator inferred from a thin ash and sand layer, which covered the EH remains, that the whole settlement was destroyed (Korres 1991, oral communication).

Dating of the "destruction" layer: Pottery material found in a trench in the NNE area, outside the tumulus, was dated to an EHIIC phase by Korres (the last EHII subphase in Korres' terminology) and consisted of a broken pithos scattered over a larger area and at least 12 other vessels which had fallen from a shelf, i.e. an askos, two sauceboats and nine saucers with either flat base or ring-base (Korres 1979, 153; 1990, 5 n.32).

This material was correlated with pottery of the EHIIb phase (Lerna III:D) as defined by Zachos at Ayios Dhimitrios (1987, 283). It is these data which Zachos used as evidence that a hypothetical earthquake had occurred, devastating Voidokoilia and Ayios Dhimitrios simultaneously at the end of the EHII period (1987, 303 n.1). I do not believe the evidence is enough to support the hypothesis of an earthquake, but as the material found in the NNE area is the latest EHII material found at the site it can, in my view, be used to give a tentative date of EHII:D for the destruction of the settlement.

One or two sherds of a sauceboat said to be made in Smear ware were dated to the EHIII period by Korres (1980, 155, 160 fig.8:b, pl.129:a) but I believe that the vessel shape suggests an EHII date also for these two sherds. Thus there does not seem to be any EH material later than EHII:D at the site.

Tumulus: After the EH settlement was destroyed the site was used for the construction of a tumulus (A) at the beginning of the MH period. Tumulus A is a burial mound which contained nine huge pithoi, placed in the tumulus so as to radiate from the centre. The tumulus is about 1.5 m high and made of earth, covered by stones. It is retained by a peribolos. Part of the EHII settlement was reused and found in the make-up of the MH tumulus (Korres 1990, 5-6), just as the case had been at Papoulia and Routsi.

General comments: In one preliminary report the excavator indicated that a storeroom, which was uncovered in the NE trench, had been destroyed by fire exactly at the end of the EHII period and that this supposedly meant that the whole settlement was destroyed at the same time (Korres 1980, 155-157). The date of the destruction of this storeroom was changed from the end of EHII to EHIIB, implying a middle phase of the EHII period (Mylonas 1983, 70-71). However, it is worth noting that Korres in his synthesis of the settlement history of Voidokoilia does not mention that the EHIIB phase ended with a destruction layer (1990, 5 n.31). I believe that this "possible" destruction layer likewise should be dated to the end of the EHII period, thereby supporting the excavator's view that the entire settlement was destroyed at that time.

It is noteworthy that a circular house, 4 m in diameter, of EHII date, was uncovered at the site (Korres 1990, 4 n.21). This house parallels other examples found at Olympia/Altis and Orchomenos.

The Cave of Nestor - Messenia (F:4)

Geographical setting: This is a large cave on the NE slope of the steep face of the Palaiokastro, just by the sea on the S side of the Voidokoilia Bay and opposite the site of Voidokoilia.

Excavated: In 1953 and 1980.

Reference: Sampson 1980b.

Study periods represented: Some trial trenches were made at the site in 1953 by McDonald and Theochares, who recorded both EH and MH material (Leekley and Noyes 1976, 130). EH and MH material was also recovered by Sampson (1980b, 184). The shallow saucers which were mentioned by Sampson, but which are not illustrated, could in my view indicate an EHII date. Dickinson mentioned that EHII material has been found at the site, but he does not consider this cave to be a habitation site (1982, 132).

Presence of a "destruction" layer: No.

Lambaina - Messenia (F:5)

Geographical setting: This is a site located on low ground at Tourkokivouro, about 1 km SE of the village Lambaina and 14 km from the sea.

Excavated: In 1963.

Reference: Papathanasopoulos 1964.

Study periods represented: Protohelladic pottery was found underneath LH material, but only a few EH sherds and no architectural remains were recovered, except in one trench where an empty cist tomb was found on bedrock. The excavator dated it to the EH period, due to the way it was constructed and to the great depth at which it was found (Papathanasopoulos 1964, 154).

McDonald and Hope Simpson consider the site to be an EH cemetery, while making the remark that EH cist graves at this spot had produced sherds of glazed sauceboats (1964, 235-236). Dickinson supports the idea that EHII cist tombs were found (1982, 133), while Pullen more prudently states that one EH tomb was excavated at this site (1985, 151).

At another time it was said that the pottery found at Lambaina was "more or less stratified" and that Papathanasopoulos considered the site to be the location of a settlement and not a cemetery (McDonald and Hope Simpson (1969, 157-158). As McDonald and Hope Simpson previously indicated that glazed sauceboats were recovered at this site (albeit supposedly in cist tombs!), I assume that *if* this is a settlement site, it was settled during the EHII period.

Presence of a "destruction" layer: No.

Akovitika - Messenia (F:6)

Geographical setting: This site is located in a flat marshy delta, just above the present sea level on the eastern bank of Pamisos. It lies about 4 km west/northwest of Kalamata and about 650 m from the present coast.

Excavated: In 1958, 1969-1971.

References: Themelis 1970, 1984; Koumouzelis-Bouchard 1981.

Study periods represented: Two megara, A and B, both of EHII date were uncovered at the site. Megaron A succeeded megaron B (Themelis 1970, 303-307; 1984, 344-347). Themelis proposed that megaron A was abandoned due to the flooding of the river Aris (1970, 307-308).

Presence of a "destruction" layer: No.

"New" features within the ceramic repertory: The bulk of the EHII pottery, which remains unpublished, was said to have been made locally, but some links with Attica were also found (Koumouzelis-Bouchard 1981, 202-203). Zachos has suggested that the pottery represents a late EHII phase (1987, 283), while Wiencke recently said that the light-painted pottery and the very shallow plates should be considered as contemporary with Lerna III:D (1989, 496 n.6, 497).

General comments: Rutter suggested once that the buildings found at Akovitika could have been the residence of the refugees from the destroyed Lerna III (1979, 15). But in the light of the correlation Wiencke has made, this seems unlikely as the pottery is now seen as contemporary with "the House of the Tiles".

Routsi - Messenia (F:7)

Geographical setting: On a ridge by the village Myrsinochori, across a deep ravine opposite Pylos.

Excavated: In 1989.

Reference: Petrakos 1989.

Study periods represented: EHII and MH. In 1989 Korres excavated the MH tumulus at Kalogeropoulou. In the make-up of the tumulus and in the periphery of it Korres found EHII material, as it was constructed on top of the EH settlement. This construction method is similar to that found in the tumuli at Papoulia and Voidokoilia (Petrakos 1989, 26-28).

Presence of a "destruction" layer: No.

Kouphovouno - Laconia (G:1)

Geographical setting: The site is a small low hill located on the NW side of the Spartan plain, about 2.5 km SW of Sparta and near the river Parori.

Excavated: In 1941.

Reference: Renard 1989.

Study periods represented: Renard considered the site to have been deserted at the end of the EHII period (Renard 1989, 21, 161-162). However, it is feasible that it was abandoned somewhat earlier, because Lerna III sauceboats of types 1-2 are said to have been found at the site and these can be correlated with Lerna III:A-B. But this hypothesis cannot be corroborated or disproved before the Lerna III material has been published.

Presence of a "destruction" layer: No.

Apsidal buildings: One apsidal building, 5.5 x 4.5 m in size, was exposed for which an EHII tomb (G2), found above the foundation wall of the house, functions as a *terminus ante quem* (Renard 1989, 35, pl.7).

Intramural burials: Tomb G2, the burial mentioned above, was accompanied by a saucer of EHII date (Renard 1989, pl.42:1), which was placed near the head of the adult skeleton. This burial is the only securely dated EHII tomb found at the site (1989, 38, 40). Tomb G1, is an intramural burial of an adult and Tomb G3, another intramural burial but of a child, should both be considered to be of EHII date as they were found more or less at the same level as G2 and possibly were associated with the apsidal house in the same manner as G2 was (see Renard 1989, 37-38, pl.7).

Amyklaion - Laconia (G:2)

Geographical setting: This site is located on the SE slopes of a hill, 1 km from the river Eurotas and about 5 km SE of Sparta. The hill is the northernmost of a chain of hills dividing the Spartan plain into a western and an eastern part.

Excavated: In 1925.

Reference: Buschor 1927.

Study periods present: The stratified pottery which was found on the SE slopes seems to span the whole EHII-EHIII-MH period (see Buschor 1927, 5-9). Later survey work at the site has corroborated these dates (Waterhouse and Hope Simpson 1960, 71 fig.1, 74-76).

Presence of a "destruction" layer: No.

Ayios Stephanos - Laconia (G:3)

Geographical setting: A flat-topped hill projecting into the western part of the Helos plain, about 45 km south/southeast of Sparta and not quite 2 km from the sea. At one point this site probably jutted into the sea as a promontory (Taylour 1972, 205).

Excavated: 1959-1960, 1963, 1973-74, 1977.

Reference: Taylour 1972.

Study periods represented: EHII and MH (Taylour 1972, 261-262). French concluded that nothing of EHIII date was found in the 1959 season (Taylour 1972, 263-265). Van Royen and Isaac, while referring to Catling (1974, 15), considered the absence of EHIII material to be confirmed by the new excavations. This meant, according to them, that there was conclusive evidence of discontinuity at the end of the EHII period (1979, 14, 57 table 2). Lord Taylour suggested that the reason for the abandonment of the site at the end of EHII was either crop failure or an epidemic of malaria (1972, 262).

Presence of a "destruction" layer: No.

Apsidal buildings: Habitation was resumed in the MH period when examples of apsidal houses were built on a NW-SE axis (Taylour 1972, 240, pl.46:a).

Shaft-hole hammer-axe of stone: A fragmentary shaft-hole hammer-axe of dark greenstone (Taylour 1972, 247 no.HS 284) was dated to EH/MH

by the excavator. However, it was found out of context in area Delta, which produced very little EH pottery, but where the MH period seems to have been quite important. Therefore I would like to suggest a MH date for this artefact rather than late EH.

Intramural burials: Five EH burials, which have been dated by their associated finds, were found concentrated in the western and southwestern part of area Alpha. The tombs were either cists or simple pits. There are possibly 12 other EH tombs, plus four which could be of either EH or MH date (Taylour 1972, 237-239), but these 16 tombs cannot be exactly dated. The five securely dated EH burials (1972, 209 nos.3, 5, 211 no.10, 212 nos.16-17), should be considered as of EHII date, I think, but only one is dated to EB2 by Pullen (1990a, 11). A fair hypothesis is that the remaining 12-16 burials also are of EHII date as no EHIII material has been found at the site.

The number of child burials vary between three and thirteen, and that of adults between two and eight (Taylour 1972, 236-239). Taylour mentioned that three MH infant burials were intramural (1972, 221), but, as Pullen has pointed out, all the tombs at the site were found among the walls of the contemporary EBA settlement (1985, 150). Consequently all of them should, in my view, be considered to be intramural. Sakellariou also referred to the EH burials as intramural, but he dated them to the EHIII period (1980, 73-74, 117-118), not EHII, which is the date suggested here.

Asteri - Laconia (G:4)

Geographical setting: A large prominent hill, known as Karaousi, 8-9 km E of Ayios Stephanos.

Excavated: In 1959.

Reference: Taylour 1972.

Study periods represented: Very little EH and MH material was recovered, because the site was weathered and the material had eroded away according to French, who excavated this site (Taylour 1972, 262-263).

In a surface survey of the site, both EHII sherds and MH Gray Minyan ware were found (Waterhouse and Hope Simpson 1960, 89-91).

Presence of a "destruction" layer: No.

Palaiokastro - Attica (H:1)

Geographical setting: The Palaiokastro is a small but prominent hill near the shore at Megara. This site was possibly an island originally. The top surface is about 90 m in diameter.

Excavated: In 1904 and 1934.

References: Bölte and Weicker 1904; Threpsiadis and Travlos 1934.

Study periods represented: MH pottery such as Gray Minyan and Matt-painted ware was mentioned by Bölte and Weicker (1904, 94-95) and by Threpsiadis and Travlos (1934, 51-52). The material published by Threpsiadis and Travlos seems to include a fragmentary sauceboat and an hour-glass pestle (1934, 51 fig.11:5-6), which in my view indicates an EHII date. French has also recorded EHII material from this site (1972, fig.10; Nisaia).

Presence of a "destruction" layer: No.

Eleusis - Attica (H:2)

Geographical setting: This site is located at the eastern end of a long and rocky ridge, close to the sea, in the SW corner of the Thriasian plain.

Excavated: Extensively since 1812.

References: Mylonas 1932a; 1932b; Pachiyanni-Kaloudi 1979.

Study periods represented: The oldest architectural remains on the south and east slopes of the acropolis were built on bedrock and belonged to the MH period (Mylonas 1932a, 150-151). Nevertheless, Mylonas was of the opinion that the acropolis had been inhabited also during the EH period as some EH sherds were found on the SW slopes of the Eleusinian hill. These sherds included fragments of sauceboats and of Pattern-painted tankards (Mylonas 1932a, 58-61 fig.36, 87 fig.65; 1932b, 107, 111, 115), which indicate the presence of both EHII and EHIII pottery at the site. Much MH pottery was recovered (Mylonas 1932b, 104-117 esp.112 figs.8-10, 113 fig.11). Extensive rescue excavations in 1979, within the modern town, produced house foundations of two EH building phases (Pachiyanni-Kaloudi 1979, 42), but these are not dated more closely by the excavator.

Presence of a "destruction" layer: No.

"New" features within the ceramic repertory: Only four Pattern-painted sherds of Light-on-Dark ware have been published from the site. They are

all said to be parts of tankards (Mylonas 1932a, 60, 87 fig.65:4, 8-9, 11; 1932b, 107 n.4, 111).

Intramural burials: Sixteen intramural burials of MH date have been exposed at the site and 36 extramural graves were found in a cemetery about 1 km west of the settlement (Blackburn 1970, 214-223).

Athens - Attica (H:3)

Geographical setting: This is mainly an acropolis site and prehistoric vestiges have also been found in its immediate surroundings. The site is located on the western side of Attica, about 5 km from the sea.

Excavated: Since 1833 almost continuously.

References: Skias 1902; Levi 1930-31; Broneer 1933; 1939; Hansen 1937; Stavropoullos 1955; 1956; 1960; Alexandri 1968; Immerwahr 1971; Pantelidou 1975; Petritake 1980; Immerwahr 1982.

Study periods represented: Pottery from the EHII-III and MH periods has been found off and on the acropolis, and I will presently describe the find context of some of the EH material. The North Slope excavations in 1931-32 produced, besides sherds of sauceboats, one sherd in Light-on-Dark ware (Broneer 1933, 356 fig.26:f,i-m, 358). The excavations made here in 1937 also produced some EHII pottery (Hansen 1937, 544, fig.3:a-d,f), of which one was described as a glazed sauceboat fragment by French (1972, fig.10). Finally, one Pattern-painted sherd found in this area in 1937-38 (Broneer 1939, 349, fig.23:k) was dated to the EHII period by Donovan (1961, 12).

The South Slope produced unstratified EH material in a cave above the Asklepieion (Levi 1930-31, 466, 468, 472, 479 fig.64, 480 fig.65). This material included quite a few sauceboat fragments and some Pattern-painted sherds (1930-31, 472, 479 fig.64b:1-2), among which were two sauceboat fragments of the EHII Dark-on-Light variety (Donovan 1961, 12).

The Agora excavations have not produced any pure EH deposits, but dumped MH material contained both EHII and EHIII pottery (Immerwahr 1971, 51). In addition to these five wells, EH pottery was found at four different spots in the Agora according to Immerwahr (1971, pl.91). Fine Slipped and Polished ware (Blegen's Yellow Mottled ware) was recorded represented by sauceboats and open bowls (1971, 55-56, 70-71 nos.241-244, pls.16,70).

Stavropoullos recovered EHII Urfirnis and EHIII Pattern painted pottery in his excavations near Plato's Academy (1956, 54), while Petritake identified three subphases of EHII in the material found at Rouf in 1981 (1980, 182). The shallow plates found at Rouf (Petritake 1980, 160 figs.21-23) can be correlated indirectly, through Kolonna, with material found in Lerna III:C (see Wiencke 1989, 497 n.6). Petritake suggested that the settlement at Rouf was abandoned at the end of the third EHII period due to natural causes, e.g. that the river Kefissou overflowed (1980, 181). Drawing on the ceramic parallel with Lerna I believe that this abandonment might have occurred at the end of the EHII:C period, but a definite dating cannot be made before the Lerna material has been published.

Presence of a "destruction" layer: No.

"New" features within the ceramic repertory: The North Slope excavations in 1931-32 produced one sherd of Light-on-Dark ware (Broneer 1933, 356 fig.26:f, 358). Three Pattern-painted sherds in Light-on-Dark ware, probably fragments of tankards, were found in the Agora by Immerwahr (1971, 57, 71 nos.247-248, 72 no.249, pls.16, 70).

Apsidal buildings: In the vicinity of Plato's Academy, 2 km NW of the Acropolis, Stavropoullos excavated an apsidal house of EH date, on the NW edge of a small hill, oriented E-W and covering 8.5 x 4.5 m. The excavator reported that pottery from a bothros near the NE corner of the apsidal house contained an abundant amount of EHII-III pottery (Stavropoullos 1956, 53-54, pls.4-5).

In Hood's opinion the date of this house remains ambiguous, but he thinks that it might be synchronized with the beginning of EHIII at Lerna (1986, 48). As the pottery found in connection with the house is dated to both EHII and EHIII, but the exact relationship between this material and the house is unknown, I would like to suggest a *terminus post quem* date of EHII for the building. We cannot come closer in dating it at present.

In 1981 three building phases of EHII date were exposed at Rouf, of which the first one was represented by a D-shaped construction, 1.8 x 1.3 m in size. The foundation wall of this building was preserved to a height of 0.5 m (Petritake 1980, 152, pl.42:d).

Burials: Tomb T23 near the Olympieion contained an EC red-slipped and burnished pyxis (Pantelidou 1975, 113-114 fig.11, pl.53), which was seen as of late EBA date by Pullen. He considered T23 and T20, located near Kerameikos, to have been found isolated from other EBA remains (1985, 127-128, figs.20-21). These tombs might be extramural, but as we cannot date

them exactly according to subphase within the EH period, I have not included them in the discussion in Chapter 5.4.

Another EH tomb (no.5 in Alexandri 1968, 49 fig.11) has been exposed which contained a shallow bowl with incurving rim and flat base (Alexandri 1968, 48, pl.28:a).

Tumulus: In 1899 a small rectangular tumulus, 3 x 1 m, was found on the south slope of the acropolis (Skias 1902, cols. 123-130). This tumulus was constructed in two layers with two pit burials in the bottom layer and four in the upper layer. Above each level several ash-layers containing charcoal and animal bones were found (see Pelon 1976, 79-80).

Immerwahr considered this tumulus to be of MH date as the pottery in the fill of the tombs consisted of Minyan, Red Burnished and incised ware of MH date (1971, 52-53). A possible EH/MH date was suggested by Buchholz and Karageorghis (1971, 47), due to the presence in the tumulus of eight obsidian arrowheads. However, the date of this particular type of arrowhead seems to span from Neolithic times to the end of the MH period according to the same scholars (1971, 78 fig.20), which in my opinion makes this artefact useless as a dating tool for this tumulus. This fact was also pointed out by Hope Simpson and Dickinson who, furthermore, considered Skias' pottery descriptions too vague to be useful in order to support a MH date (1979, 200). While Sakellariou included this tumulus among the MH tumuli (1980, 155), Müller recently suggested that it might be of a transitional EH/MH date as sherds with Minyan lustre were present in the tumulus (1989, 17 fig.9, 22 n.94, 37 no.40). However, I do not find any reason to date this tumulus prior to the MH period.

General comments: The scarcity of EHIII material in Attica has been noted by several scholars (French 1968, 62-63; Rutter 1979, 16-17, n.40) and the excavation results from Athens seem to corroborate this view as only four Pattern-painted sherds have been found, one on the North Slope and three in the Agora. It could be that French was right when he proposed that we are looking for the wrong thing. He suggested that Attica might have followed its own path, making another type of pottery during the EHIII period (1968, 63).

Rutter has identified an hypothetical EHIII assemblage for Attica (1979, 17, 25 n.41) represented by the three Black burnished vessels found in the Agora by Immerwahr, i.e. a globular jar with flattened bottom and vertical lugs, a bowl with incurving rim and gray, burnished surface and finally a two-handled jar with bosses (1971, 57, 72 nos.250-252, pls.16,70).

Now we might add the younger deposit found at Thorikos to this hypothetical Attic EHIII pottery assemblage. This deposit included ouzo-

cups and shoulder-handled bowls made of dark slipped and burnished ware (Spitaels 1984, 168-169 fig.107:a-b) and was considered to be typologically close to material at Lerna IV, Kolonna V and Lefkandi 2 by Spitaels (1984, 170).

Ayios Kosmas - Attica (H:4)

Geographical setting: This site is located on a low promontory, 150 x 110 m in size, which juts into the sea on the W coast of Attica, about 5 km SE of the classical harbour at Phaleron. Its highest elevation is about 6 m a.s.l.

Excavated: In 1930-1931 and 1951.

Reference: Mylonas 1959.

Study periods represented: Two EH phases, A and B, constituted the earliest stratum at the site and phase B was dated to EHIII by Mylonas (1959, 11, 161). This date was eventually changed to EHII by Caskey (1960, 300). In 1979 Hope Simpson and Dickinson commented on some sherds found in Area C, which in their view indicated that the site was inhabited also during the EHIII-MH period (1979, 206). They probably referred to the four small Gray Minyan sherds which were found in the sand layer superimposed on the last EH remains found in area C. These sherds were all wheelmade and probably represented kantharoi (see Mylonas 1959, 48, fig.122:5-8).

In addition to these Minyan sherds, Hope Simpson and Dickinson referred to four other sherds found in area C, which represent the only Pattern-painted ware found at the site (see Mylonas 1959, 47, fig.122:1-4). Mylonas confessed that it was hard to explain the scarcity of Patterned ware if an EHIII date was correct for the last settlement (1959, 152). In Donovan's opinion these Dark-on-Light sherds possibly should be dated to the EHII period (1961, 12), a date supported by Rutter (1982, 473 n.15).

Two other Dark-on-Light sherds were found near the extended skeleton in the "North Cemetery" (Mylonas 1959, fig.160:311-312). One of these was part of a pyxis lid and the other of a sauceboat spout. Donovan considered both of them to be of "Early Patterned ware", i.e. of EHII date (1961, 12, 30, 33), supported by Rutter, who said that they represented types current in EB2 Cyclades (1982, 473 n.15). Fragments of a pyxis were also recovered in this area (Mylonas 1959, fig.161:305-310) and the decoration on this pyxis resembles some found in Lerna IV, but due to its find context it is dated to EHII (Rutter 1982, 473 n.15).

French saw Helladic, Cycladic, Thessalian, Phocian, Anatolian and possibly Macedonian elements in the pottery found at the site and regards it to be typically EHII in date as known at Lerna (1968, 64-65, fig.61), while Doumas suggests that "the cultural relationship between Ayios Kosmas and the Cyclades seems to be limited within the Keros-Syros culture" (1977, 66), i.e. to EHII.

MH pottery was actually found at Ayios Kosmas, but remains unpublished (Dickinson 1977, 123 Ch.VI (6) n.1).

Overall, this site seems to have been settled during the EHII and MH periods, although the MH date mainly rests on an unsubstantiated statement made by Dickinson.

Presence of a "destruction" layer: Yes.

Extent of the "destruction" layer related to the excavated area: In an area of about 30 x 35 m, eight roughly rectangular houses grouped into blocks separated by narrow streets were exposed, which meant that a good part of one block and two streets were excavated. In addition to this 32 graves were excavated in the "North Cemetery" and seven in the "South Cemetery" (for plan see Travlos 1988, 7 fig.8).

A burnt layer, on average 0.35-0.45 m thick, was documented in three trial trenches under a layer of sand 0.07 m thick, which divided the EH and LH strata. The three trial trenches in question were shaft A2, trench B1 and trench B3, which were sunk at three different places of the settlement area, relatively well spread out to cover the site (Mylonas 1959, 10-11, drawings 1 and 3). I do not find any reason to doubt that the entire settlement was affected by a fire destruction.

Dating of the "destruction" layer: The excavator dated the destruction of the settlement to the very end of the EHIII period (Mylonas 1959, 161). This date was changed by Caskey to the end of EHII (1960, 300), a date largely supported by Renfrew, who at the same time did not rule out that the settlement partly had been contemporary with the "Tiryns" phase (1972a, 115, 537), meaning that it partly overlapped with the EHIII period. Most scholars agree with Caskey's redating of the destruction layer, e.g. Wünsche (1977, 19-20), Hope Simpson and Dickinson (1979, 206) and Pullen (1985, 125). Sakellariou adheres to the excavator's date of EHIII (1980, 86-87 n.4).

"New" features within the ceramic repertory: A small flask-like jug with black slip (Mylonas 1959, 40 no.79, fig.131, drawing 60), found on the platform in House I, was a unique find at the site and is considered to be a "Lefkandi I" element by Wiencke (1989, 509 n.87). Two other vessels,

found in the cemetery, are likewise considered as "Lefkandi I" features (Wiencke 1989, 509 n.87). Both represent single-handled tankards made of Slipped and Polished ware and are depicted in Mylonas (1959, fig.140 nos.161, 168).

Shaft-hole hammer of stone: A stone hammer with the beginning of a boring was found in room F3 (Mylonas 1959, 33 no.63, fig.169:63).

Burials: Thirty-two graves were excavated in the "North Cemetery" on the headland, northeast of the settlement. Seven partially or completely destroyed graves were also found in the "South Cemetery" likewise on the headland, southeast of the settlement. All these cist tombs are evidently extramural and should be dated to the EHII period.

Kolonna - Aigina (H:5)

Geographical setting: A flat mound, 200 x 70 m in size and 10 m a.s.l., forming a promontory which is connected with land on the east side.

Excavated: Extensively since 1894 (especially between 1972-1977).

References: Wünsche 1977; Walter and Felten 1981.

Study periods represented: Walter and Felten devised an internal chronology of ten "cities" at Kolonna, where three successive "cities", IV-VI, are dated to the EHIII period (1981, 10, 105). The "cities" are usually characterized by a change in architecture and in pottery assemblage. The following synchronization of the EHII period has been made between Kolonna and Lerna: City II (findgroups 7-8) = Lerna III:C, City III (findgroups 9-11) = Lerna III:D and City IV (findgroups 15-17) = Lerna IV (Pullen 1985, 216, 221-223). Rutter has correlated City IV with Lerna IV:1 (1983a, 355).

Presence of a "destruction" layer: Yes.

Extent of the "destruction" layer related to the excavated area: An area covering about 80 x 30 m or 2400 m^2 was excavated in 1972-1977 (Rutter 1983b, 106). In this area the excavations uncovered 80 meters of a defense-wall with two projecting 1/4-circular towers, in addition to several blocks of houses separated by streets/alleys, all belonging to the destroyed City V (see Walter and Felten 1981, 28-42, fig.22, plan 1).

The destruction layer, 0.2-0.4 m thick, is said to have covered all the exposed houses of City V in addition to the north and south streets and the first alley (Walter and Felten 1981, 41-42). The actual state of what was exposed in the excavations of City V is: house 3/7, its connecting room

and court were completely exposed while house 4, measuring 4.8 x 10,5 m, was almost completely exposed; the reconstructed plans of houses 1 and 2a are "not secure" and 9 and 10 are only "assumed", because of the presence of the second alley which was adjacent to the "possibly" exposed floors of houses 11 and 12, next to house 13; enough remains of houses 2, 5-6, 8, 13-14 and 16 in order to draw them on a plan, while 15 was "assumed" in the empty space between 14 and 16; west of house 13, separated by the street running N-S, the scanty remains of house 17 were found (Walter and Felten 1981, 29 figs.21-22, 33, plan 7).

On the colored plan of the excavated area (Walter and Felten 1981, colored plan 1) it is easily seen that parts of City V has been uncovered, more or less, over the entire excavated area. I find no reason to doubt that the whole settlement succumbed in a fire on the same occasion.

Dating of the "destruction" layer: City V represented the second of three "cities" dated to the EHIII period according to Walter and Felten (1981, 10, 105, 108). Rutter stated that the principal destruction level at the site occurred in the course of EHIII and the succeeding City VI continued with the same culture as City V (1983b, 108). To my knowledge two tankards, synchronized in date with Lerna IV:3 (Rutter 1983a, 338-339), are the youngest pottery found in City V.

"New" features within the ceramic repertory: Several clear "Lefkandi I" elements were seen in findgroups 9-10 (City III) and 12 (late City III-IV) at Kolonna (Rutter 1983b, 108), e.g. a two-handled cup (Walter and Felten 1981, 153 no.89), a one-handled tankard (1981, 155 no.130) and several plates (1981, 98 figs.87-88, 156 nos.142-145). Still another plate was suggested by Pullen (1985, 221) to be of "Lefkandi I" type (Walter and Felten 1981, 101 fig.95). Rutter considers it noteworthy that these "Lefkandi I" elements to a large extent were included among the late EHII pottery at Kolonna (1983b, 107-108).

Wünsche considered the EHIII Light-on-Dark pottery from Kolonna to be of both local (1977, 77, pl.18:f-g) and imported (1977, 77, pl.18:a-e) varieties. City V produced Dark-on-Light pottery (Walter and Felten 1981, 158-159, 162-163 nos.178-184, 251-252, 255-256) as well as one tankard in Light-on-Dark ware (1981, 162 no.254). The succeeding City VI, postdating the destruction, produced the following Dark-on-Light sherds usually of tankards or jars (Walter and Felten 1981, 165-166 nos.295-309) and some Light-on-Dark tankard fragments (1981, 165 nos.292-294). Pottery group 22 was considered by the excavators to belong to City V (1981, 140, 145), but on stratigraphical grounds Rutter changed this date and referred it to

City VI instead (1983b, 107). Two tankards in Light-on-Dark ware (Walter and Felten 1981, 163 nos.262-263) came from group 22.

It is noteworthy that a Pattern-painted tankard fragment (Light-on-Dark) from City VI (Walter and Felten 1981, 165 no.291) has been considered to be a "decorative hybrid" by Rutter (1988, 87 n.3), allegedly combining central Greek and Peloponnesian techniques.

A few examples of Fine Gray-burnished ware found at Kolonna have been discussed in detail by Rutter, e.g. one tankard fragment which was part of pottery group 22 (see Walter and Felten 1981, 164 no.278) and two other tankard fragments found in House 1 of City V (1981, 160 nos.205-206). These were all part of shoulder-handled tankards and were presumed by Rutter to be contemporary with Lerna IV:3 (1983a, 337 table 3, 338-339).

Two samples of Finely Incised and Impressed ware have also been recorded from Kolonna (Rutter 1982, 473). One of the samples represents a pedestal-footed cup from City V, (Walter and Felten 1981, 161 no.228), which Rutter "very tentatively" dated to a phase contemporary with Lerna IV:2 (1982, 480). The other sherd represents the rim of a rim-handled tankard (Walter and Felten 1981, 158 no.171) and was found in pottery group 13, belonging to City IV, which Rutter saw as contemporary to Lerna IV:1 (1983a, 355).

Terracotta anchors: Seven terracotta anchors were found in City V at Kolonna. Six of them were part of the material found in houses 1 and 12, which were destroyed in the great fire (Walter and Felten 1981, 114, 144, 162 nos.245-250), while the seventh anchor was found packed into the floor of house 3 and consequently included in pottery group 17, considered to belong to the very beginning of City V (1981, 108, 143, 158 no.177).

One terracotta anchor was included in findgroup 26, recorded as coming from City VI, i.e. after the destruction layer (Walter and Felten 1981, 118, 146, 166 no.310). The youngest terracotta anchor found at Kolonna was dated to late MH as it was part of findgroup 38 of City X (Walter and Felten 1981, 176 no.453, 185 n.199).

General comments: Kolonna does not show a sharp break between EHII and EHIII, like that found at Lerna in the Argolid. This led the excavators to conclude that the excavation reports from Zygouries, Asine and Korakou could be taken as accurate once again, with their dates for the destruction put between EHIII and MH (Walter and Felten 1981, 105).

Aigina V meant a new beginning in urban development of the site, breaking with the old traditions of diversity which had been the rule since Neolithic times. But there are no signs of a preceding violent destruction,

according to Felten who believes that population growth, another form of government or some other unknown factor could lie behind this change (1986, 26). Pullen recalls eastern Aegean sites, such as Poliochni and Thermi, when contemplating the uniform layout of the houses of City V (1985, 228), while Felten points to Lithares for a parallel (1986, 26 n.38). Doumas supports Pullen's idea that people from the Aegean islands, e.g. Poliochni and Thermi, settled on Aegina and built City V with its well-organized town plan and sophisticated fortification wall. Subsequently, refugees from Aigina continued to Syros where they built the hill-fort site at Kastri (1988, 27-28).

No houses were found associated with City VI. We find instead a more substantial defense wall built on top of the ruined houses from the previous city. This wall shows a totally new character with much thicker walls and four rectangular towers around the two city gates. The ruined wall of City V is rebuilt in front of the new one forming a first line of defense (Walter and Felten 1981, 43, figs.34-35, plan 8). The excavators offer, in my opinion, a rather curious explanation about who rebuilt City VI: only the former inhabitants knew the way the town was planned and how the city wall was constructed, and therefore it was they who rebuilt the town after the attackers left the scene (see 1981, 42). Another argument in favour of this theory is that the pottery sequence does not show any important changes.

However, I think that it is noteworthy that the defense system of City VI, as described above, was unique in several respects and that it was just a temporary measure. In the next period the inhabitants returned to the former system with a curved wall and intricate gate system (see Walter and Felten 1981, 50). This period, City VI, seems to be an odd interlude, but it is unclear what this means in human terms.

Thorikos - Attica (H:6)

Geographical setting: Velatouri hill is an acropolis site with two summits and extensive slopes, located in the NE corner of Laurion, about 500 meters from the sea (Mussche 1978, 10-11 figs.1-2).

Excavated: In the 1890s and 1963-1985.

Reference: Spitaels 1984.

Study periods represented: EH material, datable to the end of EHII and to the EHIII period, come principally from mine no.3, located on the lower slopes of the Velatouri hill, which was excavated in 1976, 1978 and 1980.

The mine covered an area of 225 m^2 on the exterior and 150 m^2 on the interior. Some EH sherds have also been found in the filling of the theater, in the houses west of the mine and under the washery no.4 (Spitaels 1984, 155 fig.97, 160, 162, 170-171, 173 n.26). Rutter is of the opinion that only the early stage of EHIII is represented in the pottery material found in the mine at Thorikos (1986, 32-33).

Fimmen had identified Light-on-Dark ware and Gray Minyan pottery among the sherds emanating from the top of the Velatouri acropolis (1921, 7-8, 76, 79, 81) and consequently assumed that this was the site of an EH/MH settlement (see Spitaels 1974, 173 n.27).

Presence of a "destruction" layer: No.

"New" features within the ceramic repertory: Two undisturbed pottery deposits were found within mine no.3. The older deposit consisted of slipped and burnished plates/shallow bowls, (one wheelmade), one-handled tankards and a depas amphikypellon (Spitaels 1984, 166-167 figs.104-105, 168, 169 fig.106). The excavator considered this group to be associated with the "Lefkandi I" assemblage (Spitaels 1984, 168), supported recently by Wiencke (1989, 509 n.87). Doumas disagrees with such an identification (1988, 26), but this objection is unfounded in my opinion.

The younger deposit included ouzo-cups and shoulder-handled bowls made of dark slipped and burnished ware (Spitaels 1984, 168-169 fig.107:a-b). This group was considered to be typologically close to material at Lerna IV, Kolonna V and Lefkandi 2 by Spitaels, who also commented upon the complete absence of Pattern-painted pottery of EHIII date in the younger deposit (1984, 170).

General comments: Betancourt considers the EH deposits found at the site to be related to the controversial Kastri Group (1986, 231). But he is mistaken when he treats both groups as one. It is only the first or older deposit which is related to the Kastri Group, for which the dating is disputed (see for instance Barber 1984, 88; MacGillivray 1984, 70; Rutter 1984, 95, on this issue).

Brauron - Attica (H:7)

Geographical setting: A low rocky hill with a ridge on the N side, situated at the head of a small bay, on the E coast of Attica.

Excavated: In 1948 and 1955-1957.

References: Theochares 1950; Papadimitriou 1956.

Study periods represented: EH and MH pottery was recorded by Theochares in 1950 (189, 190 fig.3, 191 fig.5). French considered some of the sherds published by Theochares (1950, 189 fig.3:a-c,e) to be glazed EHII material (1972, fig.10). Papadimitriou stated that many EH and MH vestiges were found on the south and east slopes of the hill (1956, 79), but he did not give any details about this material. Later on Theochares said that EHIII pottery also had been recovered at the site (1956, 1-2). Overall, it seems that material datable to EHII-EHIII and MH has been found at the site and that it was possibly inhabited throughout our study period.

Presence of a "destruction" layer: No.

Askitario - Attica (H:8)

Geographical setting: The site is located on a promontory on the Attic east coast. The promontory is triangular in shape and covers an area of about 5000 m^2 at 25 m a.s.l. The EH settlement is also triangular in shape, each side being about 100 meters long.

Excavated: In 1954-1955.

References: Theochares 1953-54; 1954a; 1955.

Study periods represented: Theochares suggested that the site was inhabited during EHII-EHIII and that it was either abandoned or "destroyed" at the end of the EH period (Theochares 1953-54, 62; 1954a, 104), but he did not give any reasons or details as to why he thought it could have been destroyed. In the excavations Theochares had exposed a fortification wall on the SW side of the headland (1953-54, 61 fig.3), eight rectilinear houses on the northern side of the promontory and several contemporary EH houses at the SE part of the headland. He considered these houses to be of EHIII date (1954a, 105, 108-109; 1955, 114; for plan of the excavation area see Travlos (1988, 385 fig.482).

Overbeck suggested that Askitario (and Raphina) were abandoned (if not destroyed) at the end of the EHII period (1963, 79). The last two architectural and ceramic phases documented at the site were collapsed into one, the EHII period, by Hanschmann and Milojcic (1976, 167-168, Beilage 28:4-34). Hope Simpson and Dickinson (1979, 217) supported the view that the site was abandoned at the end of the EHII period, whereas Treuil did not call the presence of EHIII material in question, but concluded that the strata were disturbed and arbitrarily dated (1983, 61-62).

It has been proposed by several scholars that the Attic EHII period possibly overlapped with EHIII in Central Greece and Lerna (Caskey 1966b, 9; Renfrew 1972a, 537) and Hood recently suggested that Askitario, with its EHII material continuing into the EHIII period, might have been destroyed towards the end of EHIII, not at the end of EHII (1986, 53). But this suggestion is weakened, in my view, by the tentative identification of an Attic EHIII pottery assemblage made by Rutter (1979, 17).

Overall, I think that the site was abandoned at the end of the EHII period, because no indication of a destruction layer has been published nor any pottery which can be dated to the EHIII period.

Presence of a "destruction" layer: No. See above for a discussion of this issue.

Apsidal buildings: Just inside the fortification wall on the west side of the promontory, a horseshoe-shaped hut was exposed (Theochares 1953-54, 65). This hut was said to be of either EHII or EHIII date by Overbeck (1963, 77), while Sakellariou said that it might be an apsidal house of EHIII date, but that this could not be verified due to the inadequate illustrations (1980, 123). Hood rightly concluded, in my view, that the date cannot be decided, but that it was implied by Theochares that it was of EH date (1986, 40).

"New" features within the ceramic repertory: A one-handled tankard (Theochares 1955, pl.35a:1) seems to represent the only "Lefkandi I" feature at the site. But other late EHII pottery was found, e.g. a Dark-on-Light pattern-painted footed jar (Theochares 1953-54, pl.II), which has been discussed by Rutter (1988, 84).

Intramural burials: Two child burials were recovered in the settlement area. One of the skeletons was found in a trench at the center of the promontory, while the other was found on a paved floor next to the western wall of room 28, which was part of house E (Theochares 1955, 115). Both of these tombs are considered in this study to be intramural and of EHII date, dated by their surrounding EHII architecture.

Raphina - Attica (H:9)

Geographical setting: The main settlement was found on a low hill above the Raphina harbour, 2 km north of Askitario. Below the hill to the south and just at the water's edge a metalworking area was uncovered.

Excavated: In 1951-1953.

References: Theochares 1951; 1952; 1953a; 1954a.

Study periods represented: In the excavations a fortification wall and five rectilinear houses were exposed, where Houses G, D and TH were separated from Houses A and E by a narrow street (Theochares 1953a, 106 fig.1). House B is cut off from the main excavation area and located at the eastern border of the hill. This fragmentary house consisted of one large room with a hearth and possibly another room to the east (Theochares 1952, 133 fig.8). Two other hearths found east of House B seem to imply other houses in this area (Theochares 1952, 142).

South of the settlement, on the beach, Theochares excavated two pits which turned out to represent a metalworking area (Theochares 1952, 130 fig.1, 131 fig.2, 132 fig.3, 133). These pits (Theochares 1951, 80 fig.3, 81 fig.4) included, besides metal waste, pottery (Theochares 1951, 82 fig.5, 83 fig.7, 84 figs.8-9, 88 figs.13-14). Just southeast of the first pit a small building was partially exposed (Theochares 1952, 130, 131 fig.2).

Theochares dated the fortification wall as well as the pottery found in the houses to EHIII (1953a, 111-118). This date has turned out to be wrong. The first who, in print, questioned the EHIII date for most of the material was Caskey who saw parallels between the Raphina material and Lerna III (1960, 300; see also Hanschmann and Milojcic 1976, 169-170, Beilage 28:35-67). The fact that the pottery from the two bothroi near House B actually was of EHIII date was also pointed out by Caskey (1960, 301). This material is considered by Rutter to represent nothing but the early stages of the EHIII period (1985, 32-33).

MH material is represented by "dark colored Minyan pottery and coarse MH pottery", but as no MH architectural remains nor any MH strata were exposed in the excavations, Theochares did not believe in a habitation during this period (1951, 77-78; 1952, 149-150). Neither did Rutter, who suggested that the site possibly was deserted, because no Gray Minyan and no Matt-painted ware were found (1979, 11 Table 3, 17; 1984, 104 fig.3)

In sum, we have good evidence of EHII material at the site followed by early EHIII material. After this there might be a hiatus in the occupation of the settlement lasting until the MH period, for which there is scant, but nevertheless some, evidence.

Presence of a "destruction" layer: No. However, as this is a somewhat controversial question I will discuss it in some detail. Theochares remarked that a fortification wall was built, probably because enemies had appeared who later "destroyed" the settlement (1953a, 111). He did not elaborate any further and no details are given concerning this

"destruction". A thin ash-layer, 2-3 cm thick and superimposed on the EH layer, was admittedly exposed on the beach, but was not commented upon by Theochares (1951, 78-79 fig.2).

Overbeck was of the opinion that the site came to "a fairly abrupt end" at the end of EHII (1963, 98), as he thought that the pottery was homogeneous EHII in date, whereas Leekley and Noyes proposed that the settlement was destroyed by MH invaders as a small amount of MH pottery was found at the site (1976, 24-25). Van Royen and Isaac excluded the site from their discussion because they considered the stratigraphy above the EHII material to be completely disturbed (1979, 33), while Hope Simpson and Dickinson mentioned that traces of a destruction by fire were found on the shore, but that the dimensions of it were unclear (1979, 217).

However, I do not think that the thin ash-layer which was found on the beach is enough evidence to prove that the site was destroyed at the end of the EHII period.

"New" features within the ceramic repertory: Fifty restorable vessels, e.g. sauceboats, saucers, one-handled tankards and plates, were part of a large deposit found in House A (Theochares 1952, 136 fig.5, 137 fig.6, 138 fig.7, 139-140, 142-148, figs.10-13) of which Rutter identified the one-handled tankards and plates as "Lefkandi I" features, while the rest represents typical EHII pottery. This assemblage, found on the last floor in House A, is used by Rutter to show that the "Lefkandi I" assemblage should be correlated with a late EHII date (1979, 17). French suggested already in 1968 that this deposit represented a mixture of Helladic, Phocian-Boiotian, Cycladic and Anatolian elements (1968, 64 fig.60).

The pottery found in the two bothroi, one inside and one outside House B, was dark-surfaced, burnished and contained much mica. Some sherds had the same gray hue as the later Gray Minyan ware, but were handmade. Shapes found represent rim-handled cups, a possible shoulder-handled tankard and a two-handled jar (Theochares 1953a, 111, 116 fig.12, 117 fig.13). This group of pottery was seen as of EHIII date by Hanschmann and Milojcic (1976, Beilage 28:68-71). Rutter identifies the "jar" as a two-handled tankard with sharply defined neck, which finds a parallel in Lerna IV (1979, 17). In sum, Rutter tentatively proposes that the pottery found in the two bothroi associated with House B represents the Attic version of a fusion of mainland Greek and western Anatolian ceramic traditions, which together constitutes the EHIII pottery in Attica (1979, 17). More recently he suggests that this group of pottery only represents the early stages of EHIII (Rutter 1986, 32-33).

Terracotta anchor: A fragmentary terracotta anchor was found in the area around the metalworking pits on the beach (Theochares 1951, 91 figs.19-20, 92). The pottery associated with this area has been dated to the EHII period, which consequently also is suggested as a date for the terracotta anchor.

Burial: Within the metalworking area architectural remains of a tomb were found, together with scattered human bones and Pattern-painted sherds of Syros type. Pullen dated this tomb to a late EHII period due to the pottery (1985, 132). It can be considered to be extramural as no houses were found in this area.

Nea Makri - Attica (H:10)

Geographical setting: A low mound by the sea on the east coast of Attica and about 5.5 km south of Marathon.

Excavated: In 1954.

References: Theochares 1954b; 1956.

Study periods represented: EHII and EHIII pottery was found at the site (Theochares 1956, 3). Nothing of the EH pottery has been published and the excavator mentioned only in passing that EH walls also were uncovered. Theochares concluded that most of the EH settlement had eroded away (1954b, 114).

Burial: In 1980 an EH tomb, used as an ossuary, was excavated containing 15 burials. The associated pottery consisted of frying-pans and pyxis fragments (Theocharaki 1980, 82-84). We cannot discern the exact relationship between this tomb and the settlement site, or its exact date, because we lack information.

Presence of a "destruction" layer: No.

Tsepi - Attica (H:11)

Geographical setting: This is a cemetery site located about 3 km W of Plasi, at the entrance of the Vrana valley, on the edge of the plain of Marathon.

Excavated: In 1970-1972.

References: Marinatos 1970a-d; Travlos 1988.

Study periods represented: Marinatos considered the pottery found in the tombs to be of ECI-II date (Marinatos 1970c, 349-350, 364-366), whereas Doumas saw the pottery as belonging to the Keros-Syros culture sphere (1977, 66). Such a date is supported by Barber who stated that the finds are "Cycladic in character and of ECII date" (1987, 136), and by Coleman who suggested that the frying-pans from the site probably are of ECII date (1985, 213-214). Thus, the material from these tombs, which are of clear Cycladic mark, can be correlated with an EHII date if we follow the synchronizations suggested by Rutter (1984, 104 fig.3).

Presence of a "destruction" layer: No.

Burials: In 1970 at least five parallel rows of cist tombs had been exposed (Marinatos 1970b, 154) and the number of cist tombs had risen to 22 with the last season of excavations (Orlandos 1972, 6 fig.1; Travlos 1988, figs.273-276, 279). The associated pottery, as already mentioned, indicates that this cemetery was in use during the EHII period. In 1979 a trial trench, which was dug 400 m south of the cemetery, exposed remains of what was possibly the EH settlement to which this necropolis belonged (Travlos 1988, 217).

Plasi - Attica (H:12)

Geographical setting: A low mound located on the plain of Marathon, about 700 meters from the sea.

Excavated: In 1969-1970 and 1984.

References: Mastrokostas 1970; Marinatos 1970a-b, d.

Study periods represented: An EH settlement, surrounded by a fortification wall, and superimposed by MH buildings was excavated at Plasi (Marinatos 1970a, 66; 1970b, 154; Mastrokostas 1970, 17). EH and MH pottery, but of unknown subphases, was recovered (Mastrokostas 1970, 17-18; Marinatos 1970d, 5). Recent press reports have mentioned that prehistoric buildings were exposed in the resumed excavations of 1984 (Catling 1984-85, 11), but no further details are known.

Presence of a "destruction" layer: No.

Koropi - Attica (H:13)

Geographical setting: At the foot of the eastern slope of Mt. Hymettos, in the southeastern part of Attica.

Excavated: In 1985.

References: Kakavoyanni 1985, 1986.

Study periods represented: EHII. Five large subterranean chambers cut into the rock and dated to the EHII period were excavated by Kakavoyanni, as well as six wells and one pit. The largest chamber is oval in shape and measures 10 x 7 meters (1985, 66; 1986, 37 fig.31, pl.1:a-c). Half-burnt metal ore indicates a metallurgical area nearby if not in the chambers, according to the excavator (1986, 37-38). Nothing of EHIII or MH date has been reported from the site. It is possible that a settlement site, which might be associated with these workshops, was discovered in 1987 (see Catling 1988, 13), but we cannot discern if this was the case until more information has been published.

Presence of a "destruction" layer: No.

"New" features within the ceramic repertory: The pottery is said to include, besides ordinary EHII pottery, e.g. glazed sauceboats on conical feet (Kakavoyanni 1985, 69, pl.20:a; 1986, 38), burnished pottery and fragments of plates, jugs with cut-away neck and pyxides, which, in my view, probably indicates that it belongs to the "Lefkandi I" pottery assemblage as defined by Rutter (1979). None of this material has been published yet.

Terracotta anchor: Part of one terracotta anchor was found on bedrock in one of the chambers (Kakavoyanni 1985, 69; 1986, 38). As the pottery from the site is dated to the EHII period I assume that this anchor likewise can be dated to EHII.

Vlicha - Boiotia (i:1)

Geographical setting: An isolated rocky hill, 37 m a.s.l., bordering the sea to the E and a small fertile plain to the W. The site is located on the Boiotian shore opposite Chalkis on Euboia.

Excavated: In 1977.

Reference: Demakopoulou 1988.

Study periods represented: At the time of the trial excavations on the SE slope of the site, EH material was found on the surface, which Demako-

poulou interpreted as evidence that the site was inhabited during the EH period (1988, 2, 6). Nothing is said about possible EH subphases for this material, but EHII and MH material has on several occasions been recorded as found on the ground, and Theochares even mentioned that EH walls were visible on the surface (Theochares 1959, 309, 311; French 1972, figs. 10, 14; Fossey 1988, 75, 533 pl.1 site 93). Thus, this site seems to be one of those which lack EHIII material, but where both EHII and MH pottery was found.

Presence of a "destruction" layer: No.

Drosia - Boiotia (i:2)

Geographical setting: This site is a low mound, situated on the south side of a small bay, about 3.5 km west of the village Drosia.

Excavated: In 1969 and 1978.

References: Spyropoulos 1970a; Touloupa 1978.

Study periods represented: A stratigraphical section on the northern slope of the mound contained 17 strata of which the EH strata were the most prominent, superimposed by MH strata (Spyropoulos 1970a, 223). In the trial excavations carried out in 1978, northeast of the hill, MH architectural remains were exposed as well as a MH destruction layer which included ash, burnt bones and Gray Minyan sherds (Touloupa 1978, 118 fig.1, 119). Both French and Fossey have reported EHII, EHIII and MH pottery from Drosia (1972, figs.10-11, 13-14, "Khalia"; Fossey 1988, 79, 531 pl.1 site 43).

Presence of a "destruction" layer: Yes.

Extent of the "destruction" layer: It seems that the destruction layer was documented in the deep section and nowhere else in the excavated area. Apparently several ash-layers were seen in the deep section made in 1969. Traces of floors with destruction debris were found on five occasions of which the clearest destruction layer, consisting of burnt mudbricks, was seen above the floor of stratum 5, dividing this stratum from stratum 6 (Spyropoulos 1970a, 223, pl.208:b).

Dating of the "destruction" layer: Spyropoulos stated that the destruction layer associated with the fifth stratum was of EH date (1970a, 223), but does not give any further details and does not date it according to subphase within the EH period. Spyropoulos was correctly referred to by

Catling who said that "at least one violent fire destruction belonged to the EH period" (1972, 13).

Numerous scholars have in their works dated the destruction layer to the EHIII period, and have at the same time referred to Spyropoulos' preliminary report; e.g. Hope Simpson and Dickinson reported "a destruction at the end of EH" (1979, 253), Sakellariou dated the destruction to EHIII/MH (1980, 85 n.9, 86) and Konsola even suggested that Drosia was destroyed by enemies at the end of EHIII together with Orchomenos and Eutresis (1981, 43, 57). However, in my opinion, the destruction layer at Drosia cannot be dated until further details have been published.

Dramesi - Boiotia (i:3)

Geographical setting: This is a large prehistoric mound on the coast bordering the Vathy plain.

Excavated: In the 1910s and 1965.

References: Papadakis 1915; Touloupa and Symeonoglou 1965b.

Study periods represented: In the 1910s Papadakis found Urfirnis pottery in a layer which was superimposed by Minyan strata (1915, 55). Excavations carried out in 1965 on top of the mound revealed EH architecture and EH pottery above which MH layers were exposed (Touloupa and Symeonoglou 1965b, 242). Both French and Fossey have reported EHII, EHIII and MH pottery from this site (French 1972, figs.10-11, 14; Fossey 1988, 66-67, 530 pl.1 site 16).

Presence of a "destruction" layer: No.

Hypaton - Boiotia (i:4)

Geographical setting: The EH settlement site is located on a small acropolis S of the modern village Hypaton, NE of Thebes, while EH tombs have been found cut into the lower slopes of another small acropolis nearby.

Excavated: In 1969.

Reference: Spyropoulos 1970b.

Study periods represented: EH architectural remains and EH pottery were reportedly found in excavations south of the the modern village (Spyropoulos 1970b, 226). A more exact EH date of this material is not given by the excavator. However, Hope Simpson and Dickinson recorded

EHII and MH material from the site (1979, 247), while Fossey mentioned EH and MH Gray Minyan ware from Hypaton (1988, 220, 533 pl.1 site 85).

Presence of a "destruction" layer: No.

Burials: At the same time as the excavations mentioned above were undertaken, three rock-cut EH tombs were exposed on a small acropolis site nearby (Spyropoulos 1970b, 226). These tombs are probably extramural but cannot be dated according to subphase within the EH period.

Lithares - Boiotia (i:5)

Geographical setting: The EH settlement site of Lithares is located in a valley between two hills and west of a creek running through the valley. On the E side of this creek an EH cemetery was excavated in 1968. The site of Lithares opens in the S to the Thebaic valley and in the N to Lake Hylike. Lithares is located about 12 km N of Thebes.

Excavated: In 1968, 1971-1974, 1976.

References: Spyropoulos 1969; Spyropoulos and Tzavella-Evjen 1973; Tzavella-Evjen 1984, 1985, 1989.

Study periods represented: A densely packed EHII settlement was uncovered, consisting of 20 rectilinear houses arranged on both sides of a street 70 meters long (Tzavella-Evjen 1984, 166 fig.6, 204-210; 1985, 49). EHII and EHIII pottery material was recovered in the earlier excavations (Spyropoulos 1969, 33 drawing 3; Spyropoulos and Tzavella-Evjen 1973, 374). However, in 1984 Tzavella-Evjen suggested that the unstratified sherds of EHIII date from the site were too few to support a sequence into the EHIII period (1984, 215). On a later occasion she acknowledged that a mislabeling of the Lithares artifacts in the Museum at Thebes might have contributed to the subsequent confusion in dating the site (1989, 5).

In a recent analysis of EHII pottery Dousougli reached the conclusion that nothing of EHII date was found at Lithares which can be dated to a period later than early EHII (i.e. after Lerna III:B); consequently she proposed that the site was abandoned at some time in the earlier part of EHII (1987, 166-167, 212, 213 n.142, 214). Incidentally Wiencke, who eventually will publish the crucial EHII material from Lerna, once commented on Dousougli's results and mentioned on that occasion that Lithares possibly was abandoned in an early stage of EHII (1989, 499).

However, Tzavella-Evjen recovered many sauceboats, similar to type IV at Lerna, and the material also included saucers, one-handled cups,

shoulder-handled bowls and plates (Tzavella-Evjen 1984, 210, pls.20, 33, 38-41, 43). The type of sauceboats and shallow plates, the latter resembling a common "Lefkandi I" element, should in my view, probably be synchronized with Lerna III:D. Consequently Dousougli's tentative dating of the abandonment of Lithares is not corroborated by Tzavella-Evjen's preliminary reports.

We have already noted that it is said that the few Pattern-painted sherds of EHIII date, which were found at Lithares, could not be used as evidence that the site was inhabited during that period (Tzavella-Evjen 1984, 215; Treuil 1983, 69). But how else can we explain the presence of these sherds? Are they the remnants of possible squatters in the abandoned settlement? The EHII building remains were found at a depth of 0.4-0.6 m and occasionally it is said that plowing had disturbed levels down to 0.7 m (Tzavella-Evjen 1985, 9, 11). Could not the EHIII settlement just have been plowed away? I will argue that it could.

Fossey recently recorded that EHII-EHIII-MH material was found in his survey also at Lithares (1988, 245, 531, pl.1:site 41). Moreover, he suggested that the so-called "Sanctuary of the Bulls" perhaps was of EHIII date (1988, 244-245), thus following e.g. Hope Simpson and Dickinson (1979, 248) and Leekley and Efstratiou (1980, 24). In this instance we might suspect that the mislabeling Tzavella-Evjen referred to, and which was mentioned above, is responsible for this EHIII date, because I believe that the majority of the material excavated by Tzavella-Evjen actually should be dated to the EHII period, including the "Sanctuary of the Bulls". In sum, I suggest that Lithares was settled throughout the EHII-EHIII-MH period as material from all these periods admittedly has been found at the site.

Presence of a "destruction" layer: No. As this issue is a bit controversial I will discuss it in more detail. Tzavella-Evjen has repeatedly mentioned that the site either was destroyed or abandoned (1984, 210, 215; 1985, 20), but at the same time she stated that no skeletons and no ash-layers were found. Thus, an actual enemy attack had never taken place; the people just left, she said (1984, 95; 1985, 20). The disaster Tzavella-Evjen hinted at as the cause behind this abandonment was an earthquake, evidenced by the orientation and the manner in which some stone walls had collapsed (1984, 95). However, I cannot support the notion that Lithares was destroyed as no actual destruction layer has been found at the site. Furthermore, we cannot decide if the alleged earthquake could have caused the stone walls to collapse before more data has been published.

"New" features within the ceramic repertory: A handful of EHIII Pattern-painted sherds of both Dark-on-Light and Light-on-Dark variety has been published from the site (Tzavella-Evjen 1984, pl.79:b, th; 1985, 37 fig.26:l-m, pl.19:o). These prove, in my view, that the site was inhabited also during the EHIII period.

Terracotta anchors: Spyropoulos mentioned that two terracotta anchors were found in a surface layer, which contained mixed EHII-EHIII pottery material (1969, 30, 33 fig.3). Consequently the dating of these anchors cannot be made more exact than to either EHII or EHIII, which is also pointed out by Buchholz and Wagner (1987, 130). Subsequently eight terracotta anchors have been found by Tzavella-Evjen of which two were surface finds (1984, 180-181, pl.85:a-b, d-e). Thus, six anchors probably belong to the stratified EHII material, while the remaining two can only be given a tentative EHII-EHIII date.

Shaft-hole hammer-axe of stone: It is possible that a fragmentary shaft-hole hammer-axe was found, which is said to be made of marble and termed a skull crusher in the excavation report (Orphanides in Tzavella-Evjen 1984, 216, pl.96:o). The find context is unfortunately not known, but I assume that it is of EHII date as the majority of the pottery is of EHII date.

Burials: About 50 tombs were excavated in the cemetery, E of the creek, and on the SE coast of Lake Hylike, near the settlement of Lithares. All finds in these tombs are EH according to Spyropoulos, except some sherds of MH fruitstands. The tombs consisted of rock-cut chambers, usually with a dromos one meter long (Spyropoulos 1969, 36-43). Weisshaar considered these tombs to be of EHI date and thought that the MH pots were later intrusions (1989, 98-99). See Pullen (1985, 135) for further discussion.

Thebes - Boiotia (i:6)

Geographical setting: The site is located on the northern side of a chain of low hills controlling the large fertile Aonian plain and with numerous natural springs in the vicinity. The EH settlement formed an oval in the southern part of the acropolis named "the Kadmeia".

Excavated: Extensively since the 1880s.

References: Demakopoulou and Konsola 1975; Konsola 1981; Symeonoglou 1985; Aravantinos 1986. Rescue operations are reported annually in *ArchDelt*.

Study periods represented: EHII, EHIII and MH material has been found at the site (Demakopoulou 1976, 121, 124). Konsola has divided the EHII period into two phases, group A and group B, defined by changes in the pottery assemblage. Group A represents a mature or typical EHII phase, while group B represents a late phase of EHII and is synchronous with "Lefkandi I" (Konsola 1981, 119-123, 143-146; 1986, 15).

Presence of "destruction" layers: Yes.

Extent of the "destruction" layers: It is not possible to relate the individual destruction layers to the total area of excavation as the modern town of Thebes is superimposed on the EH settlement, which means that rescue excavations are undertaken in disconnected plots here and there over the entire city. However, as more and more data are being collected and published, it is becoming increasingly clear that large parts of the Kadmeia were destroyed by fire a couple of times during the EH period.

The apsidal house, site II 16 (see Konsola 1981, pl.2, map 9), covered about 64m^2 and was burnt down during EH. The destruction debris consisted of burnt wooden remains and baked mudbricks (Demakopoulou 1976, 124; Konsola 1981, 106). Fifty meters south of this apsidal house a destruction deposit containing EH sherds and a Trojan cup was recorded by Demakopoulou (1976, 125-126, fig.97:g). Still another destruction layer was documented at site III 7 (see Konsola 1981, pl.2, map 9), but its extent is not recorded (Touloupa 1964, 192, fig.222:b).

Very strong signs of a fire destruction was documented in 1982 at the Pelopidou 26 and Oidipodos plot by Aravantinos. This is the site where a fortified building of early EHII date (group A) was uncovered (see Aravantinos 1986), superimposed by the conflagration layer just mentioned, which in its turn was succeeded by EHIII architectural remains (two rooms were found with plastered walls and floors) containing large amounts of Ayia Marina pottery. Between this EHIII layer and the following MH layer was a thin destruction layer (Aravantinos 1982, 167).

At another building plot, adjacent to the previous one, Aravantinos found similar data the following year. At Pelopidou 27, an EHII stratum was reached, which ended in a thick destruction layer. Both these building plots seem to be fairly close to site II 16 mentioned above.

Another destruction layer was recorded at Dirkes and Eurydikes street, where a house was built on bedrock. Signs of a destruction layer (by fire?) were found also in this instance and the next layer contained Ayia Marina ware and "Proto-Minyan" ware. The EHIII stratum was likewise destroyed in a fire superimposed by a MH layer (Aravantinos 1982, 165). A house at site III 6 (see Konsola 1981, pl.2, map 9) was destroyed in an

intense fire and a 0.3 m thick layer of debris covered the floor (Symeonoglou 1966, 189-191).

However, it is noteworthy that several houses managed to stay intact possibly at the same time as these fire destructions occurred. Thus, it is plausible that e.g. the large apsidal house, site I 2 and the elliptical house at site II 8 (Konsola 1981, 102, 104, 147, 160, pl.2, map 9; 1986, 15, fig.52), stayed intact, as well as site II 7 (see Konsola 1981, pl.2, map 9) in the southern part of the Kadmeia (see Demakopoulou 1979, 165-166, 167 fig.2), while at the same time other parts of the Kadmeia burnt down.

Dating of the "destruction" layers: In the burnt apsidal building, site II 16, several intact vessels were found near a column-support in the apsidal room, which all belong to the group B pottery (Demakopoulou 1976, 124, pl.95; Konsola 1981, 118). The pottery associated with site III 7, where another destruction layer had been found, was also dated to the late EHII phase (group B) by Konsola, who based this date on some unpublished material exhibited in the Museum at Thebes (Konsola 1981, 151). Site III 6, likewise destroyed in an intense fire, contained Pattern-painted pottery of EHIII date (Konsola 1981, 96; Symeonoglou 1985, 244-245).

Recently published material indicates that destruction layers datable to the "Lefkandi I" phase are documented on three occasions in the south-eastern part of the Kadmeia e.g. a well-burnished neck-handled tankard was found in the destruction layer at Pelpopidou 27. In two of these instances a destruction layer was found also at the end of the EHIII period (Aravantinos 1982, 165, 167; 1983, 131, pl.63:b).

Apsidal buildings: The apsidal house at site II 16, about 8.8 x 8 m in size, situated in the SE section of the Kadmeia and of late EHII date, was excavated in 1975. This house is oriented E-W; the eastern room is rectangular, divided from the apsidal wall by a crosswall, and plastered remains still adhere to the walls (Demakopoulou 1975, 194 drawing 1; 1976, 124, fig.94:d). A circular hearth, 0.62 m in diameter, was found in the rectangular room, filled with ashes and animal bones (Demakopoulou 1975, 196-197, fig.2). As already noted this apsidal building burnt down in a late EHII phase (Demakopoulou 1976, 124).

Another contemporary apsidal house, at site I 2, was, as already noted, not destroyed by fire. This house was oriented NW-SE and found in the central area of the Kadmeia. Symeonoglou estimated its size to be 23 x 10 m and parallel to its northern side, at a distance of about 1 m, the fragmentary wall of what might be a similar apsidal building was exposed (Symeonoglou 1966, 178 fig.1, 180; 1985, 15, 17, 225-226, fig.2.2). Pullen

estimated that the size of the apsidal house at site I 2 was 140 m^2 (1985, 241).

"New" features within the ceramic repertory: The "Lefkandi I" pottery assemblage has been seen as contemporary with the Theban group B as identified by Konsola. Elements which point toward an advanced EHII date for the group B pottery are, according to her: the absence of sauceboats and saucers, the use of bad dark glaze, the use of the potter's wheel and the common use of Slipped and Polished ware. Konsola suggests that bowls with incurving or T-rims, Trojan cups (one-handled tankards) and Slipped and Polished ware make the synchronism with "Lefkandi I" clear (1981, 143-145). Group B pottery has been found at e.g. site II 16, consisting of an askos, two tankards, four bowls, two Trojan cups, a frying-pan and a one-handled cup (see Demakopoulou 1976, 124, pl.95).

The stratigraphy, as found in 1982 at the Pelopidou 26 and Oidipodos plots, seems to fix the date of the controversial "Lefkandi I" pottery assemblage, as early EHII pottery (group A) was superimposed by the "Lefkandi I" material which in its turn was topped by architectural remains of EHIII date containing large amounts of Ayia Marina pottery (Aravantinos 1982, 167).

Light-on-Dark Pattern-painted ware of EHIII date has been found for instance at site III 6 (Konsola 1981, 96; Symeonoglou 1985, 244-245) and site IV 10 (Demakopoulou 1978, 110 fig.2, 111-112). EHIII material has also been recorded in connection with site II 7, e.g. a small pyxis with a lid and one-handled cups (Demakopoulou 1979, 165-166). The pottery of EHIII date is called group Gamma by Konsola and consists of Smear ware, Light-on-Dark and, to a lesser extent, Dark-on-Light ware (1981, 147).

Terracotta anchors: Around the apsidal house II 16, but out of context, the excavator found two terracotta anchors (Demakopoulou 1976, 125, pl.96:e). As this house has been dated to late EHII, I suggest a similar date for these anchors, contrary to Buchholz and Wagner's EHIII date (1987, 130).

A "ritual tumulus": An extraordinary tumulus was excavated in 1971-72 on the Ampheion Hill, north of the Kadmeia. The tumulus was built of mudbricks on top of a hill and was shaped like an Egyptian mastaba in 2-3 levels. The diameter of the tumulus was 35 m. Inside the tumulus there was a plundered cist tomb. Both the cist tomb and the tumulus were dated by the excavator to the EHII period, due to the presence of two EHII vessels, including a sauceboat, and some gold objects, in a semi-circular area near the cist. Much EHII pottery was also said to have been found in the make-up of the tumulus. The Mycenaean sherds found in connection

with the EH material were explained as later intrusions emanating from the time of the tomb robbery (Spyropoulos 1972a, 308, pl.250:f; 1972b, 16-26; 1981, 102-112, figs.40-42, 45, 66).

Several scholars have associated this tumulus with the "Kurgans", while the excavator Spyropoulos saw it as evidence of an Egyptian presence in EBA Greece, supported recently by Bernal (1991, 128-133). However, these hypotheses are rejected by most scholars (see Loucas 1987, 96-99). The Loucas couple, in turn, proposed that the tumulus was built in the EH period by the Boiotians as a funerary monument dedicated to the divine twins Amphion and Zethus (1987, 99-105).

Sakellariou disregards the EHII sherds found in the tumulus and dates it to a transitional MH/LH period (1980, 93 n.3). Hood also suggests a later date than EHII because of the tomb type, a cist, and the jewelry (1986, 58). Branigan, on the other hand, says that all datable parallels, to the quadruple spirals which were found at Thebes, are from Troy II (1974, 42, 186 no.2411:A-C).

Supporters of an EHII date for this tumulus are e.g. Pelon (1976, 85-86, 88-94), Treuil (1983, 441), Treuil *et alii* (1989, 178) and Fossey (1988, 203). Müller recently proposed that the tumulus itself should be dated to a final EHII phase, while the cist inside it is of a transitional MH/LH date (1989, 18-19, 34, 38 no.47).

I propose that a date sometime during the EHII period is likely for this "ritual tumulus", a term used in this study denoting a tumulus which was not used for a burial originally, because of the two EHII vessels found inside the tumulus. However, this cannot be more than a tentative date.

Intramural burials: At least one, possibly two, tombs have been considered as intramural and probably of EHII date in this study. The first one was a burial of an adult which was found under the house floor of site III 7 (Touloupa 1964, 192; Konsola 1981, 110). The second tomb was found at site II 8 and this is a cist tomb containing two skeletons. It was originally dated to EHIII, but Konsola did not rule out an EHII date (1981, 110, 151-152 n.67). As the house at site II 8 is dated to the late EHII phase I have very tentatively given the same date to this tomb. Another burial of an adult was documented at site II 6, near an EH wall, but as it lacks offerings it cannot be dated according to subphase within the EH period (Konsola 1981, 110, 152).

General comments: A metal hoard, found in the large apsidal house at site I 2, comprised two chisels, one double-axe, a shaft-hole axe and two awls (Demakopoulou and Konsola 1981, 44, pl.19). The shaft-hole axe has been seen as an import from southeast Europe (the Bulgaria-Rumania

area) at the end of the third millennium (Maran 1989, 129-136). All tools, except one, were in very good condition. It is unknown whether the tools are made of copper or bronze as no analysis has been published (Maran 1989, 129 n.4).

The opinions about the date of this deposit vary. Konsola refers to information given by the excavator, Platon, when she dates the house, including the metal deposit, to a late EHII phase (1981, 83 n.9, 149). Renfrew (1967, 9) says either EHII or EHIII, while Howell (1973, 81), Dickinson (1977, 97) and Tripathi (1988, 45) all support an EHIII date. Maran considers the storage vessel for these objects to be typical of EHIII in central Greece and consequently thinks that EHIII is a likely date for this material. At the same time he does not exclude a late EHII date (1989, 129 n.16).

Eutresis - Boiotia (i:7)

Geographical setting: This site is a flat plateau or hill, which on the north side rises to a small summit. It dominates the fertile plain of Leuctra and has a spring nearby.

Excavated: In 1924-1927 and 1958.

References: Goldman 1931; Caskey and Caskey 1960.

Study periods represented: EHII, EHIII and MH material has been found at this site and the following synchronism has been made between the two different sets of excavation results by Hanschmann and Milojcic (1976, 157, Beilage 26):

Goldman (1931)	**Caskeys' groups (1960)**
House I - EHI	III - VI (partly)
House L - EHII	VI (partly) - VIII
House H and T - EHIII	IX
MH stratum	X

Presence of a "destruction" layer: Yes.

Extent of the "destruction" layer related to the excavated area: In the 1920s the small summit on the northern side of the site and 11 groups of trenches, both off and on the plateau, were excavated. It is estimated that about 570 m^2 of the total area excavated in the 1920s contained EH material (Hanschmann and Milojcic 1976, 156 n.457). In 1958 two additional

trenches were dug: trench A (ca. 45 m^2) contained EHII and earlier material, while trench B (4.5 m^2) produced EHIII and MH material.

Goldman stated that the houses of EHIII date, except the ones found in pit V, showed signs of burning and some walls were partially overthrown. A 0.2 m thick layer of ash and debris was found on the floor, as well as outside, house H (98 m^2) and house T (24 m^2) was badly destroyed in the destruction (Goldman 1931, 20-27). In 1958 a 0.25 m thick burnt layer was found in trench B, covering deposit IX and antedating house M of MH date (Caskey and Caskey 1960, 129, 158, 167). In sum, the total extent of the destruction layer as exposed in the two separate excavations has been estimated to cover at least 130 m^2 (98 m^2 + 24 m^2 + 4.5 m^2) out of a total of about 575 m^2 (where EHIII and MH material possibly were found). Thus, I do not find any reason to doubt that this site actually was destroyed by fire.

Dating of the "destruction" layer: Goldman dated the major destruction of the site to the EHIII period and this date was confirmed by the excavation carried out by the Caskeys in 1958.

Apsidal buildings: Among the earliest MH architecture found at the site were houses C and X, which both had apsidal ends (Goldman 1931, 35 figs.37-39). So little remained of house S, likewise of early MH date, that it is impossible to say whether it had an apsidal or a straight end (1931, 48, fig.53).

"New" features within the ceramic repertory: A few "Lefkandi I" features have been recorded from the site, of which Goldman published a one-handled tankard (1931, 105 fig.138) and Rutter has referred to three unpublished fragments of two-handled cups (1983a, 345 n.57). Another unpublished one-handled tankard found at Eutresis has been mentioned by Kunze (1934, 55 n.5).

Light-on-Dark ware was found in great profusion. Shapes represented are: tankards (Goldman 1931, pl.7), one-handled cups (1931, fig.156:7-8) and sauceboats (1931, fig.156:4). Dark-on-Light ware is rare; hardly a dozen sherds were found at Eutresis (1931, 116, 123, fig.166). Donovan considered three of these sherds (Goldman 1931, fig.166:5-7) to be of his early Pattern-painted variety and thus of EHII date (1961, 14-15, 30), while one sherd (1931, fig.166:4) supposedly represents a tankard fragment of EHIII date (Donovan 1961, 34).

Only two small sherds of Fine Gray-burnished ware have been recovered at Eutresis (Caskey and Caskey 1960, 158; Rutter 1983a, 338). Rutter considers it mere chance that no more Fine Gray-burnished ware was found at Eutresis as, according to his theory, it was in Boiotia that this pottery developed (1983a, 352 n.74). I think it is untenable to support this theory, as we only have *two* small sherds of this ware from Eutresis and I do not find it realistic to imagine that it is just by chance that no more have been discovered, especially if Rutter's idea of this being the centre for its development is assumed (see also Chapter 5.2).

Terracotta anchors: Five anchors were found by Goldman who dated them to the EHI and EHII periods (1931, 196-197, fig.269:1,3). Only two of them are depicted. The EHI date given by Goldman to one of these anchors is principally interesting, as that makes it the earliest one found in the study area. This anchor was found on the floor of House I (Goldman 1931, 196-197, fig.269:3). The other material found in House I has generally been recognized as belonging to the EHI period (Caskey and Caskey 1960, 164-165; Hanschmann and Milojcic 1976, 157, Beilage 25:53-60). Included in this material was also a glazed sauceboat (Goldman 1931, 94, figs. 117:1, 118), which thereby is probably the earliest one found in the study area. Subsequent archaeological work done at Eutresis by the Caskeys in 1958 likewise produced glazed sherds and sherds of sauceboats in layers which were seen as contemporary with Goldman's "second meter of deposit" and House I of EHI date (Caskey and Caskey 1960, 144 group IV, 148 group V).

Weisshaar has consistently wanted to change the EHI date of the anchor found in House I at Eutresis to EHII, because of the presence of the glazed pottery and the sauceboat in the same layer (1980, 38-39; 1989, 51, 97 n.743, Taf.145; 1990, 18 n.135). Buchholz and Wagner, however, suggested that Weisshaar's redating of the anchor to the EHII period is wrong, because both Goldman and the Caskeys said that the glazed sherds and the sauceboat were found out of context, belonging to a later intrusion (1987, 139). But this is not correct. A glazed sauceboat was definitely found on the floor of House I (Goldman 1931, 94) and it does not seem to be a later intrusion. What might have caused this confusion is that Goldman on the previous page (1931, 93) mentioned a black glazed sauceboat which was found on bedrock in pit II and which was said possibly to be a later intrusion.

The Caskeys had included in group IV included some sherds with a coating resembling glaze, "maybe a forerunner of the substance generally used in ...EHII". The same was possibly also the case with the few glazed sherds of saucers and sauceboats in group V, but these were said probably to be intrusive from above (Caskey and Caskey 1960, 144, 148). In this instance we should note the distinction between the words "probably" and "possibly". Buchholz and Wagner do not mention that a possible

prestage of glazed pottery was present in group IV, a group which is generally dated to the EHI period (also by Weisshaar 1989, Taf.145).

After this complex discussion concerning one of the terracotta anchors found at Eutresis I will make the following remarks. It seems that Buchholz and Wagner have partly correctly, partly incorrectly, referred to the works by Goldman and by Caskey and Caskey (1987, 130 n.77). Weisshaar has incorrectly compared the finds in House I with Caskey's groups V and VI (1980, 38 n.31). The material from House I is only contemporary to group V (Hanschmann and Milojcic 1976, Beilage 25-26) and the pottery from group V was seen as primarily of EHI date (Caskey and Caskey 1960, 164-165).

It seems that one of the reasons for Weisshaar to change the dating of the stratigraphy at Eutresis was that no other site had such a deep EHI stratum and nowhere else had a possible forerunner to both glazed ware and the sauceboat been found of such an early date (1980, 39; 1989, 97). However, I do not think we have reason to question the EHI date given to the finds in House I. This leaves us with at least one possible EHI anchor within the study area, which furthermore was found in the northern part of this area.

Shaft-hole hammer-axes of stone: Two complete and many fragmentary shaft-hole hammer-axes of stone were found in MH strata at Eutresis (Goldman 1931, 206-208, figs.278:7-8, 279).

Intramural burials: One EH grave was found by Goldman, but she did not date it according to subphase within the EH period. The grave is described as a child burial found on virgin soil directly under a clay floor in pit II (Goldman 1931, 221, 226 no.20, plan 2:c). It is not clear which floor is meant as several are indicated on the plan. However, virgin soil was found at 0.22 m; the two walls antedating House H were found at 3.57 and 3.45 m and its floor at 3.39 m, which is the lowest floor mentioned by Goldman. Therefore there seems to be a discrepancy of about 3 meters between this floor and the floor under which the child burial was found. Consequently earlier floors, which are not mentioned by Goldman, must have been found in pit II. As the EHI material at Eutresis has been found at a distance from the central area, I think first of all that this burial probably is of EHII date, as it clearly antedates House H, and secondly, that it is intramural as it was found under a house floor.

Blackburn (1970, 224) considered all the 24 graves found and recorded by Goldman (1931, 223-226) to be intramural and probably of MH date, which means that she included among these 24, the burial I have tentatively dated to EHII.

Other possible changes: Several scholars have pointed out what Renfrew called the "discontinuous transition" between EHII and EHIII at Eutresis (Renfrew 1972a, 116; Hanschmann and Milojcic 1976, 159; Pullen 1985, 246-247). It was actually Goldman herself who first drew our attention to this discontinuity when she remarked that sauceboats, bowls on ring-base and askoi, which were popular during the EHII period, disappeared in or at the beginning of EHIII. In its place came some wheelmade pottery, Pattern-painted ware, Dark coated ware and new shapes such as tankards and one-handled cups (Goldman 1931, 115-116, 229).

Donovan has even suggested that the intruders, after destroying the Peloponnesian sites at the end of EHII, reached central Greece, e.g. Eutresis, Orchomenos and Ayia Marina, where in the next period they produced Light-on-Dark ware and started to use the potter's wheel (1961, 15, 129).

Orchomenos - Boiotia (i:8)

Geographical setting: The site is located on the E slope of the mountain Akontion with a commanding view of the Kephissos valley, W of Lake Kopais.

Excavated: In 1903, 1905 and 1929.

References: Bulle 1907; Kunze 1934.

Study periods represented:

Rundbautenschicht (Neolithic)
Bothrosschicht ("untere" and "Hauptbothrosschicht")
(after Bulle 1907, 16, 26-27, 104)

Rundbautenschicht (früh or early EH)
Mittlere Urfirnisschicht (mittel or middle EH, former "untere Bothrosschicht")
Obere Urfirnisschicht (spät or late EH, former "Hauptbothrosschicht")
(after Kunze 1934, 9-11, 25).

Untere Urfirnisschicht (dated to EHII, former "Rundbautenschicht")
Mittlere Urfirnisschicht (dated to EHII)
Obere Urfirnisschicht (dated to EHIII)
(after Hanschmann and Milojcic 1976, 161-162, Beilage 27).

Kunze was of the opinion that the usage of the terms EHI-III implied synchronisms and contemporaneity with other EH sites, implications which were borne out for Orchomenos only in the broadest sense for the

EHII period, but quite accurately for EHIII. To avoid this dilemma Kunze instead used the terminology early, middle and late EH when dating the pottery (1934, 11, 96).

Presence of a "destruction" layer: Yes?

Extent of the "destruction" layer related to the excavated area: Hanschmann and Milojcic have estimated that 1500 m^2 were excavated by Furtwängler and Bulle in 1903 and 1905, and in 1929 Kunze made a small test trench covering about 16 m^2 (Hanschmann and Milojcic 1976, 160 nn.506, 512).

Bulle suggested that the numerous collapsed mudbrick walls pointed to a violent destruction of the site with a new settlement following (1907, 57). I will presently enumerate some of the instances when collapsed walls are mentioned. The remains of house K38 consist of a layer of mudbrick detritus mixed with chunks of burnt mudbricks. Probably associated with K44, which is a one-roomed apsidal building, is a 0.4 m thick layer of burnt detritus (K46), which covers the floor of house K44 (K45a-b) in about 5 m^2 (calculated from pl.5 in Bulle 1907). In the NE section drawing, stratum $K56^4$ constitutes the remains of tumbled mudbrick walls, and $K57^4$ is a floor on which collapsed mudbrick detritus had fallen (Bulle 1907, 57, 105-106, pl.5). In trench C^2, located ca. 60-70 meters away from area K, strata d-g were from the last EH period. Stratum d is a red burnt earthen floor, stratum e is a layer of white ash from burnt wood, stratum f is charcoal and finally stratum g is a layer consisting of the collapsed and burnt mudbrick remains of a wall (Bulle 1907, 57, 98 fig.28, pls.2-3).

Dating of the "destruction" layer: Kunze dated the destruction to the end of the EH period (1934, 96), whereas Caskey was of the opinion that there was no general destruction at the site (1960, 301). French agrees with Caskey's view that there is no stratigraphical break at the end of EHIII, but he says that there is a strong break in the pottery sequence at that time, i.e. when the Gray Minyan ware was introduced (1972, 42).

Konsola, on the other hand, supported Bulle and Kunze and suggested that a catastrophe occurred at the site at the end of the EHIII period (1981, 57-58). Following Konsola, I believe that the indications of a destruction layer, as documented by Bulle (see above), can be used to tentatively support the excavators' interpretation that Orchomenos was destroyed at the end of the EH period (meaning the end of the EHIII period).

Apsidal buildings: The architectural remains which can be dated to the second of two EHII phases, i.e. the former "untere Bothrosschicht", imply that apsidal one-roomed constructions (K31 and K32) were built then

(Bulle 1907, 35, 51, 105, pl.5). Two apsidal one-roomed houses (K44 and K72a) can be dated to the EHIII period as they were found in the former "Hauptbothrosschicht" (see Bulle 1907, 35, 105-107, pl.5).

The architectural remains in area N cannot be dated according to subphases within the EH period, but we know that both D-shaped and one-roomed apsidal houses (N20-21, N27, N29, N34, N54 and N62) were found in this area (Bulle 1907, 25-26, 34-35 fig.9, 100, pl.4). These seven can be of either EHII or EHIII date; it is not possible to decide which. Incidentally, Hood dated all the apsidal houses at Orchomenos to the EHIII period as he considered the Bothros horizon to be one single unit (1986, 38), but this is not correct; there are two different bothros strata at the site, one of EHII date and one of EHIII date.

"New" features within the ceramic repertory: A few "Lefkandi I" features were recovered at Orchomenos, e.g. one-handled tankards, depas amphikypellon and plates (Kunze 1934, 54-55 fig.15, 56-60, pls.22:2-4, 23:1,3). The depas amphikypellon (Kunze 1934, 56-57, pl.23:1) cannot be dated as it was found out of context. The other elements came from different *loci* ranging in date from the "Untere Urfirnisschicht" to the "Obere Urfirnisschicht" (meaning EHII-EHIII date).

Pattern-painted ware appeared in the "Obere Urfirnisschicht" and then especially Light-on-Dark ware (Kunze 1934, 17, 88-90), e.g. a flat-based cup with vertical handle to rim (1934, 48 no.32) and a one-handled cup on ring base (1934, 49 no.33). The Pattern-painted pottery at the site has been considered to be of EHIII date by Donovan (1961, 15-16, 96-97, 99-107).

A noteworthy feature at Orchomenos are the shoulder-handled bowls with one vertical handle (Kunze 1934, 51 nos.35-37, 74 no.66), which seems to be a unique shape occurring only in Boiotia and at Olympia in Elis (Rutter 1982, 486 n.47).

Terracotta anchors: Buchholz and Wagner have mentioned that terracotta anchors, but of unknown date and amount, have been found at Orchomenos (1987, 129-130 n.70).

Intramural burials: Altogether 48 intramural MH burials were found. They were mostly cist tombs where adults and children were about equally represented (Bulle 1907, 61, 63; Blackburn 1970, 271-276).

Other possible changes: Hanschmann and Milojcic (1976, 161) have suggested that there was a notable line of division between the EHII and EHIII pottery assemblage at the site, and that this division also was marked by a clay floor documented in 1929 in the trench made by Kunze.

Khostia - Boiotia (i:9)

Geographical setting: An acropolis site with adjacent lower city, located on the southern end of a spur of Mt. Helikon, which runs into the Saranda plain ca. 2 km from Saranda Bay. The acropolis is also known as the Kastron.

Excavated: In 1980 and 1983.

References: Fossey 1981; Fossey and Morin 1986.

Study periods represented: EHII-EHIII and MH pottery has been recorded from the site (Fossey 1981, 126; Fossey and Morin 1986, 178). This material has been found both on the surface and in the excavations of two walls (IV and V) in the eastern quarter of the site (Fossey and Morin 1986, 43, 47 fig.11, 103 fig.27, 109-118).

Presence of a "destruction" layer: No.

Manika - Euboia (J:1)

Geographical setting: A low-lying promontory controlling the straits of Euripos, 5 km NE of Chalkis. As the sea level has risen since the EH period, EH buildings are found as far as 200 m from the present shore. Until 1986, 127 tombs had been excavated in the cemetery found adjacent to the settlement.

Excavated: In 1904-1905 (cemetery). In 1955, 1968, the 1970s and the 1980s (settlement and cemetery).

References: Papavasileiou 1906, 1910; Theochares 1959; Sampson 1983, 1985, 1986, 1987, 1988; Sapouna-Sakellarakis 1984, 1986, 1987.

Study periods represented: In 1955 Theochares suggested that the architectural remains and the pottery which were found in cleaning operations on the peninsula were of EHII-EHIII and MH date (1959, 296-301). But Overbeck, while referring to the work done at Lerna, indicated that Theochares had mixed up the dates of most of the EHIII pottery and that hardly anything of EHIII had been found at the site. Consequently he concluded that the town met its end at the end of the EHII period (1963, 125-126).

French, on the other hand, had found clear indications that the settlement was inhabited also during the EHIII period, as shoulder-handled bowls (Bass bowls) and a Pattern-painted tankard were found on the surface in the settlement area (1966a, 49-50; 1972 figs.11, 13). These finds may be the ones Sampson uses as evidence when he states that the site contracted during the EHIII period to the tip of the peninsula (see below); however, this is only an assumption, as at one point he mentioned that EHIII material *primarily* had been found on the peninsula (1985, 151). Rutter has also commented the scarcity of EHIII finds at Manika (1988, 87 n.4), while referring to Sampson's work.

Sampson has, somewhat confusingly, devised numerous different chronological systems applicable not only to Manika, but to Euboia as a whole in relation to the mainland. In trying to combine these different systems we get the following picture:

Mainland	**Manika**	**Euboia**
classical EHII/ or EH 2	2 or EHIIa	EH3
late EHII/ or EH 3	3 or EHIIb	EH4
EHIII/ or EH 4	4	EH5

(after Sampson 1985, 10, 152; 1986, 47; 1988, 78)

Sampson states that Manika was occupied during the entire EHII period, i.e. Manika 2-3. Manika 3 was synchronized with "Lefkandi I" and characterized by Anatolian influences. During Manika 4 and the following MH period the town contracted to the tip of the peninsula (1985, 147-152; 1986, 47-50). He suggested also that the short late phase of EHII (EHIIb) should be seen as independent of EHII as known in the Argolid. Moreover he proposed that the subsequent EHIII period should be named after each individual region, e.g. Argive EHIII or Euboian EH5, because the material culture during this period was not homogeneous throughout the area (1985, 148-152; 1986, 47, 50 n.3).

However, it is in my opinion clear that even if the EHIII finds are sparse they are documented at the site, and not only on the peninsula but also in other parts of the settlement; e.g. Smear ware of EHIII is said to have been found in the Kavata plot in area IV and at other places over the site (Sampson 1985, 123, 129; 1988 fig.2). Excavations undertaken in Manika by Sapouna-Sakellarakis at the Sousi plot have also produced EHII and EHIII pottery (1984, 122).

Overall, I think that the theory according to which Manika decreased in size during EHIII might be the result of pressing the material in order to make it conform to more general ideas about the turbulent end of the EH period.

Presence of a "destruction" layer: No.

Apsidal buildings: Apsidal houses are said to be rare, but two houses are mentioned by Sampson, both of EHIIa date (1985, 325-326), meaning typical EHII. One of these houses is published in some detail by Sampson (1985, 47 pl.16, 49-50 fig.12, 13a). It is not known if the other apsidal house which was mentioned by Sampson is the one Sapouna-Sakellarakis tentatively identified at the Sousi plot in 1984 (1984, 122). We have at least two apsidal houses at Manika dated to the EHII period. There is possibly one more, but as both EHII and EHIII material was documented from this area by Sapouna-Sakellarakis this assumed apsidal house is given a *terminus post quem* date of EHII.

"New" features within the ceramic repertory: Numerous "Lefkandi I" elements were found by Papavasileiou in the tombs, e.g. plates, one-handled tankards, beaked jugs and incised pyxides (1910, 7-8 figs.6,9-10, pls.b,z,h,th), as well as by Sampson in the more recent excavations carried out in the cemetery, e.g. plates, two-handled cups and beaked jugs (1985, 253 pl.84, 259 fig.60, 260 pls.85-87, 273, 275 fig.65).

Similar "Lefkandi I" elements have been collected on the surface in the settlement area. These elements include a possible depas amphikypellon, beaked jugs, one or two-handled tankards and wheelmade plates (Sackett *et alii* 1966, 87-88 fig.19:25; French 1966a, 49, 53 fig.7:3-5; 1968, 53 fig.55, 54 fig.56).

One Light-on-Dark Pattern-painted tankard of EHIII date was recovered on the surface in the settlement area by French (1966a, 49-50, 53 fig.7:6; 1972, fig.11). Some Dark-on-Light unstratified sherds are found in the cemetery area and in Area II, on the Afendaki's plot, according to Sampson (1985, 183-185 fig.64). I assume that these are of EHIII date.

Shaft-hole hammer-axe of stone: One shaft-hole hammer-axe of stone was recovered by Sampson in area I of the settlement (1988, 13-14, 84 no.208, 101, 138 fig.13:10, 209 fig.112). The houses in this part of the settlement have been dated to EH2 (EHII) and EH3 (Sampson 1988, 13). Thus, we cannot come closer in dating this axe than to some time during EH2-EH3, which in the conventional terminology means the EHII period.

Burials: Sampson in 1985 considered the 93 tombs excavated until then, including the 50 tombs explored by Papavasileiou, to be of either EHIIa or EHIIb date (Sampson 1985, 158-200). The number of tombs had increased to 127 by 1987 (Sampson 1987, 19) of which 54 tombs were securely dated to EH2/EHIIa and 15 securely dated to EH3/EHIIb (1987, 20, 24-28). This means that at least 69 tombs securely dated to the EHII period, using the conventional terminology, are found at Manika. All of them are extramural even if occasionally the builder of an EHII house seems to have forgotten that older tombs existed, with the consequence that tombs can be found very close to a house (Sampson 1985, 80, 187 fig.53).

Excavations in 1984-1985 by Sapouna-Sakellarakis uncovered 29 tombs in area E (1986, 30) of which 27 probably are mentioned by Sampson in 1987 and therefore are included in the figures above.

The Cycladic connections of these tombs are conspicuous; e.g. numerous frying pans and marble bowls have been found in them, e.g. Theochares (1959, 304-306 fig. 28) and Sampson (1988, 69). But Trojan grave goods have also been found in the tombs, e.g. Sackett *et alii* (1966, 57 n.66, 87 n.148, 89-90). Sampson suggested that the pottery found in the cemetery, which commonly originated in the Cyclades or the East, probably was imported for tomb use only (1983, 74-76, figs.7-9).

General comments: Sampson doubts that even a limited infiltration of Anatolian tribes to Manika took place, because the architecture, pottery and burial practices at Manika exhibit an uninterrupted continuity throughout the EH period (1985, 391).

Lefkandi - Euboia (J:2)

Geographical setting: A long and narrow plateau, 500 m x 120 m in size and rising some 17 m a.s.l. Abrupt cliffs face the sea, while the site has a gentler incline towards the landward side. The site is located at the eastern end of the fertile Lelantine plain.

Excavated: In 1964-1966 and 1968-1970.

References: Popham and Sackett 1968; Sackett and Popham 1972.

Study periods represented: In 1968 six tentative phases were identified at Lefkandi. Phase 1 was seen by French as contemporary with early EHIII in the Argolid (early part of Lerna IV), following EHII on Euboia, while at the same time it could possibly be contemporary with EHII in other regions (in Popham and Sackett 1968, 8). Phase 2 pottery indicates a new cultural period though some degree of continuity existed. Howell has suggested that this phase might be seen as partly contemporary with Lerna IV (in Popham and Sackett 1968, 8-9). Phase 3 is also of EHIII date, while Phase 4 is the earliest MH strata according to Rutter (1983a, 339 n.27).

Subsequent work in trench CC, which was the only square excavated down to bedrock, seemed to confirm the stratigraphy outlined in 1968. At least three EHIII building phases were distinguished, the earliest being

founded on bedrock. A few fragments of sauceboats and frying-pans in the lowest level suggested to Popham a possible overlap with EHII, but could also be interpreted as the result of later contamination (in Fraser 1970, 8).

The important pottery assemblage from Phase 1 has been variously dated to late EHII, transitional EHII/EHIII or early EHIII.

Presence of a "destruction" layer: No.

"New" features within the ceramic repertory: The Phase 1 pottery is mostly wheelmade and unpainted with its closest parallel in Western Anatolia in the EB2 and EB3 periods, i.e. Troy II and III-IV. If the surface is treated it is with a wash (an applied colour) or a slip (clay-based). The pottery is usually burnished. French identified the following major fabrics (in Popham and Sackett 1968, 7 fig.7, 8): Plain buff (fig.7:2), Red wash (fig.7:1,3,6,8), Brown wash (fig.7:5,7), Dark coated, brown burnished (fig.7:4), black burnished and some Smear ware. Two sherds which were possibly glazed and of EHII date were included in the Phase 1 material (1968, 8). The commonest shape in this assemblage is the shallow plate (fig.7:1,2). Rounded bowls with incurved rims are found in all fabrics (fig.7:3-4) and cups occur in most fabrics, e.g. the "Lerna" cup (fig.7:5-6) and the "Troy" cup (fig.7:7-8). Beak-spouted jugs occur sporadically (1968, 8). It is noteworthy that French mentioned that a handful of Gray ware sherds was found in Phase 1, but that he thought these were later intrusions (see French in Popham and Sackett 1968, 8).

The pottery in Phase 2 heralds the beginning of a new cultural period (even if some features survived from Phase 1). A new feature is the Gray Minyan ware, which is usually handmade and sometimes of a brownish/gray colour as if experimenting. The Pattern-painted ware shows some relationship to the Dark-on-Light ware of EHIII date in the Argolid, but at Lefkandi it is less frequent. Two sherds of Light-on-Dark ware were also found (Howell in Popham and Sackett 1968, 8). The shallow plate of the previous phase is replaced by a deep bowl with everted rim and strap handles on the shoulder (1968, 9 fig.8). This vessel has been identified as a Bass bowl of Fine Gray-burnished ware by Rutter (1983a, 337 table 3, 339). Both levels 2 and 3 at Lefkandi produced Bass bowls, while kantharoi and bowls with horizontal handles made of Fine Gray-burnished ware belong exclusively to Phase 3. The following synchronization was suggested between Lerna and Lefkandi: Phase 2 = Lerna IV:1-2; Phase 3 = Lerna IV:3 (Rutter 1983a, 339 n.27).

Eretria - Euboia (J:3)

Geographical setting: The EH settlement seems to have included the area stretching from a low-lying island at the southeastern side of the harbour to the acropolis, 1200 m from the sea.

Excavated: Extensively since the 1880s.

Reference: Themelis 1969.

Study periods represented: EHII, EHIII and MH. Themelis proposes that the site was inhabited from the beginning of the EHII period when new people came to Euboia. In 1968 he dug in the SE sector of the town, in square G/9 (for grid, see Auberson and Schefold 1972, 34), where he found architectural remains and pottery dating from EHII and EHIII (Themelis 1969, 170-176). Then in 1979, in square G/10, Themelis found an EH building and EHIII and MHI pottery (Catling 1981, 8).

In 1980, the Swiss school excavated prehistoric levels in the so-called "Vouratsa plot", where both EHIII and MH pottery was recovered in a layer 1.1 m thick. They have also found what seem to be MH apsidal houses associated with Minyan ware (Catling 1982, 17-18).

Presence of a "destruction" layer: No.

"New" features within the ceramic repertory: Among the pottery found at the site were two-handled cups, of which at least one was said to be gray (Themelis 1969, 172 fig.9:15, 175). The two-handled cups are clear "Lefkandi I" features.

General comments: Themelis proposes that Troy IV might have been the actual source for an invasion of Eretria during EHIII (1969, 175-176).

Amarynthos - Euboia (J:4)

Geographical setting: A prominent flat-topped hill, ca. 250 m x 150 m in size, whose cliffs project into the sea. This site is situated at the extreme E end of the Eretrian plain.

Excavated: In 1977.

Reference: Parlama 1979.

Study periods represented: EHII, EHIII and MH material has been recorded at the site (Parlama 1979, 14). All the building remains are more or less rectilinear and three walls (2-4), which represent three different

structures, are all dated by associated pottery to the EHII period (Parlama 1979, 5 pl.1, 14).

Presence of a "destruction" layer: No.

"New" features within the ceramic repertory: A great amount of so-called "scored" ware was found, which has been dated to a transitional EHII/III period, corresponding in date with "Lefkandi I" according to Parlama. Some Dark-on-Light pottery of EHIII date was also found in the excavation (Parlama 1979, 8-14).

Examples of "Lefkandi I" features, which have been found on the surface at this site, e.g. a wheelmade plate and a tankard with one or two handles, are presently part of the BSA Collection (French 1968, figs.54, 56).

Mourteri - Euboia (J:5)

Geographical setting: The settlement site is located on the E slopes of a hill, facing the sea, on the S side of the gulf of Kyme and just N of the river mouth of Chondros.

Excavated: In 1976.

References: Sampson 1978; 1981.

Study period represented: EHII.

Presence of a "destruction" layer: No.

Apsidal building: One apsidal building was found in Trench I. The dimension of the apsidal wall (0.5-0.6 m wide) indicates in the opinion of the excavator a rather big building (Sampson 1978, 245-246, 248 fig.3, 259 fig.5). The pottery found associated with this house and with the architectural remains in trench II (Sampson 1978, 248-251, 257-262) should in my opinion be dated to the EHII period.

Oreoi - Euboia (J:6)

Geographical setting: A 30 m high mound located on the N coast of Euboia, E of the modern town Oreoi.

Excavated: In 1939.

Reference: Theochares 1959.

Study periods represented: Mixed EHII and MH pottery was found by Theochares in a thin upper layer. The fine EHII pottery consisted of

Urfirnis ware, shapes represented were skyphoi and sauceboats, while the coarse ware consisted of pithoi and deep bowls with taenia bands. Matt-painted pottery was also found and a tomb containing two burials, presumably of MH date (Theochares 1959, 307, 310-311).

Presence of a "destruction" layer: No.

Distomon - Phocis (K:1)

Geographical setting: A small rocky hill, 6 km N of Distomon. The site is also known as Schiste Odos or Mega.

Excavated: In 1907.

Reference: Sotiriades 1908.

Study periods represented: The excavator Sotiriades believed that he had found a Neolithic settlement with remains of huts, handmade incised or ribbed pottery and two terracotta anchors (Sotiriades 1908, 65, 91, pl.b:6, 9, 15-17, 21-23). However, Wace and Thompson considered the presence of the terracotta anchors to indicate a date corresponding to a late part of Orchomenos III (1912, 202), meaning the MH period. Vatin suggested that the material from the site was datable to the EHI-EHII period (1964, 568), which is corroborated in part by French, who mentioned that EHII Urfirnis ware from Schiste presently is stored in the Museum at Chaeronea (1972, fig.10).

Presence of a "destruction" layer: No.

Terracotta anchors: As mentionend above, two terracotta anchors were among the finds made by Sotiriades in the early 1900s (1908, pl.B:6,9). We have seen how these anchors were dated to the Neolithic by its excavator, but to the MH period by Wace and Thompson, supported by Hammond (1972, 263-264). But as no pottery of either EHIII or MH has been published from the site, I would like to suggest a *terminus ante quem* date of EHII for these anchors, because of the dates given for the pottery by Vatin (1964, 568).

Ayia Marina - Phocis (K:2)

Geographical setting: A high mound, N of the river Kephisos, on the Phocian plain, rising about 10 m above the surrounding ground.

Excavated: In 1910-1911.

Reference: Sotiriades 1911, 1912.

Study periods represented: No clear stratigraphical layers were found at this site. It is said by the excavator that one layer, 3.5 m thick, contained "Kamares ware" (EHIII) and possibly some Minyan pottery (Sotiriades 1912, 275-276). That EHII material also had been found at the site was mentioned by Childe (1915, 196) and Kunze (1934, 38 n.1, 39).

Presence of a "destruction" layer: No.

"New" features within the ceramic repertory: One feature of the "Lefkandi I" assemblage has been documented as coming from this site by Kunze, namely some Trojan cups (Kunze 1934, 55-56). The find context of these cups is unknown, and as both EHII and EHIII material evidently has been found at the site we cannot say if they are of late EHII date (like other Lefkandi I pottery) or EHIII date (nevertheless, Howell (1973, 86) dated them to EHIII).

The pottery Sotiriades calls "Kamares ware" in the excavation report is actually what French has termed Ayia Marina ware of EHIII date, also known as Light-on-Dark ware (1972, 20). A detailed analysis of this type of pottery was made by Donovan in 1961, where he included a large amount of unpublished material from Ayia Marina (1961, 47-59, 96-108, 126-132).

Maran recently published one EHIII sherd of Finely Incised and/or Impressed ware from the site (1987, 78 fig.1).

Burials: Sotiriades mentioned, in connection with some stone walls, that three cist burials, two adults and one child, had been found at the site (1912, 272). These burials were possibly intramural, as EH architectural remains were found in the same trench (5 x 5 m). Hood recently discussed these two adult intramural burials of EHIII date (1986, 61), but he did not say that a child burial also existed.

Drachmani - Phocis (K:3)

Geographical setting: Under this name two prehistoric sites exist, both in close proximity to the village Drachmani. Both sites are low mounds, one to the E and one to the N of the village.

Excavated: In the early 1900s.

References: Sotiriades 1908, 1910, 1912.

Study periods represented: A MH tumulus (north of the village) and one settlement site with mixed EHII-EHIII-MH material (west of the village).

Presence of a "destruction" layer: No.

"New" features within the ceramic repertory: Light-on-Dark Pattern-painted pottery was found in the mound west of the Drachmani village, in the so-called Piperi-Yiannakopoulos plot (Sotiriades 1912, 270-271 fig.12). Light-on-Dark pottery from the site has also been documented by French (1972, fig.11).

Tumulus: A tumulus consisting of a woman's skeleton placed under a cairn of stones was found to the north of the village at the foot of the hills. Among the grave offerings found in the tumulus were one black Minyan kantharos, one black shoulder-handled deep bowl and a painted beaked jug (Sotiriades 1908, 90 fig.14, 91-92 fig.15, 94-96, pl.5:2). A large Matt-painted jar with a bulbous neck was found on top of the tumulus just beneath the surface (Sotiriades 1908, 95, pl.5:1). Sotiriades at first believed that the grave should be dated to the MM period due to the "Kamares pottery" found in the burial, but in 1910 he changed this date to EBA, referring to the "finds" in the tomb (1910, 165-166).

Parallels to the Matt-painted jar of MH date have been found in Argolis and Attica (Buck 1964, 248, pl.13-C3) and the opinion that the tumulus is of MH date seems to be more or less unanimous, e.g. Blackburn (1970, 212), Dickinson (1977, 34, 97-98), Sakellariou (1980, 93, 154), Hammond (1972, 260 n.6; 1973a, 23).

However, recently Müller dated the tumulus to a transitional EHIII/MH phase (1989, 22 n.96, 38 no.49). She might have inferred such a date because of the gold rings found associated with the burial, which Sotiriades dated to Troy II (1908, 94 fig.16, 96) which Müller equates with EHIII (1989, 22 n.96). But the synchronism of Troy II = EHIII is not generally accepted (see Mellink 1986, 143, 144 pl.16).

I think, however, that there should not be any doubt about the MH date for the tumulus. The gold rings might very well be heirlooms.

Lilaia - Phocis (K:4)

Geographical setting: A small pointed hill, ca. 200 x 130 m in size, with broad terraces on the N and the E sides.

Excavated: In 1978.

Reference: Wallace and Wilkie 1978.

Study periods represented: EHII and MH.

Presence of a "destruction" layer: Yes.

Extent of the "destruction" layer: Three trial trenches were excavated, each 4 m^2. A 1.25 m thick destruction layer consisting of limestone blocks, fired mudbricks, charcoal and ash, mixed with EHII pottery, was found in Trench 1 (Wallace and Wilkie 1978, 159-161).

Dating of the "destruction" layer: The destruction debris contained typical EHII pottery such as sauceboats and Urfirnis ware. Furthermore, the pottery in the two strata above the destruction layer appears also to be EH in date (Wallace and Wilkie 1978, 159-160).

Kirrha - Phocis (K:5)

Geographical setting: This is a large flat mound, located E of the river mouth of Pleistos, at the Corinthian Gulf.

Excavated: In 1937-1938.

References: Dor *et alii* 1960; H. and M. van Effenterre 1975; Nikopoulou 1968.

Study periods represented: The two earliest strata were assigned to the end of the EH period, originally called EHIIIa and EHIIIb, but later combined into EHII. Above the EHII stratum, which ended in a general destruction layer, five MH strata were recorded. The terminology used for the periods at Kirrha has changed thus:

Dor *et alii* (1960)	**Caskey (1962)**	**van Effenterres (1975)**
EHIIIa and b	EHII	EHII
Burning	Burning	Burning
MH1a	EHIII	"MH1a"
MH1b	early MH	"MH1b"

The French excavators of the site were of the opinion in 1975 that the material culture represented by MH1a and MH1b at Kirrha was equivalent to the EHIII and an intermediate EHIII-MH period at Lerna (van Effenterres 1975, 40-41). They denied the existence of an EHIII period altogether and wanted to rename this phase to "Minyen ancien". However, Caskey remarked that this new term only would add to the confusion and that we should stick to the old terminology EHI-III, MH until a fundamental change is made (1978, 488-491). The van Effenterres' renaming of EHIII to MHI has not yet gained acceptance, except among some French scholars (see Treuil and Touchais in Treuil 1989, 169, 255).

Presence of a "destruction" layer: Yes.

Extent of the "destruction" layer related to the excavated area: EH architectural remains were found in the deep probes 1, 4 and 5 (Dor *et alii* 1960, pl.4 legend). However, according to the plans EH architecture is documented in area B and probe 1, in area D and in probe 4 (Dor *et alii* 1960, pls.8, 12). The EH buildings in areas B and D are about 50-60 meters apart, and I assume that the EH settlement covered the whole distance between these two areas.

It was said at one stage that a thick layer containing charcoal, ash and burnt mudbricks covered the EH remains (Dor *et alii* 1960, 30). In the later report it is said that more than one meter of archaeologically sterile soil was found between EHII/MHIa (van Effenterre's 1975, 42). The ash-layer was documented in probes 1, 3 and 4 (Dor *et alii* 1960, 30 n.3; van Effenterres 1975, 41 n.37). These probes are fairly well spread out over the excavated area; therefore I have concluded that it is quite likely that the site was destroyed, just as the excavators have suggested.

Van Royen and Isaac emphasized signs of a conflagration under the "MH1b" stratum in two (pits 1 and 4) out of five pits and reached the conclusion that a partial destruction had occurred also at the end of EHIII (1979, 19). Neither the French excavators, nor Caskey, commented on this thin ash-layer; on the contrary, the van Effenterres actually denied the existence of a destruction layer at the end of the EHIII period, and they explained the differences seen between the MH1a and MH1b periods as adjustments over a very long period of time to the comings and goings of different groups of people (1975, 40-41, nn.32-33). I believe that the evidence of a second destruction layer is too meagre to be acceptable.

Additional excavations were made in 1967 by Nikopoulou about 100 m from the old excavations. By the time the work stopped, she had reached MH buildings built on top of a "destruction layer", claimed to be of EH date (Nikopoulou 1968, 144-146). No further details are published.

Dating of the "destruction" layer: Dor *et alii* stated that a thick ash-layer covered the EH remains (1960, 30), while the van Effenterres mentioned that more than one meter of archaeologically sterile soil was found between the EHII and the MHIa layers (1975, 42), which means between EHII and EHIII in the conventional terminology. The evidence of a later destruction layer, brought to our attention by van Royen and Isaac, is not convincing and I have consequently not considered that the site was destroyed at the end of EHIII.

"New" features within the ceramic repertory: The problem with the published material from Kirrha is that we very rarely know the find context of the pottery or other type of artefacts. Overall we know that only a handful

of Pattern-painted sherds, of which five were considered to be of EHIII date by Donovan (1961, 14), have been published from the excvations at Kirrha (Dor *et alii* 1960, 66, pls.17-18:a-c), but their find context remains unknown.

A so-called strainer, which is slipped gray-brown and polished (Dor *et alii* 1960, 84, 127, pl.48:14), finds close EHIII parallels at Kolonna in find-group 22 (Walter and Felten 1981, 163 nos.267-269, pl.102). That it was of EHIII date was stated already by Caskey (1962, 211).

Terracotta anchors: One terracotta anchor was recorded as found both in probe 3 (Dor *et alii* 1960, 106-107, 144 inv.no.6549, pl.62:26) and in probe 5 (1960, 150)! Whatever the exact find context might have been, I assume that it is of EHII date, because most of the material Dor *et alii* in 1960 dated to the EH period has been shown to belong to the EHII period.

Buchholz and Wagner have mentioned another anchor, possibly from Kirrha, which presently is stored in the Museum at Delphi (1987, 130 n.80). But this anchor is not dated.

Shaft-hole hammer-axes of stone: It is said that hammers or axes were recovered from *every level* at Kirrha (Dor *et alii* 1960, 105, 143:21:a inv.no.6517, pl.61 no.21). These tools should be considered to be shaft-hole hammer-axes, drawing on the similarities between the illustrated examples from Kirrha and Thermi (see Lamb 1936, 183). Furthermore, I believe that it has been adequately shown by Caskey that material spanning the EHII-EHIII-MH period was found at the site; consequently these artefacts span the same period, if the statement referred to above (Dor *et alii* 1960, 105) is correct.

Intramural burials: One tomb of EH date was found at the site (Dor *et alii* 1960, 43-44, 119). This was an intramural pithos-burial containing the bones of a child. The burial was *covered* by a deep bowl and a saucer was found nearby (Dor *et alii* 1960, 119, pls.23:2, 24:4). Caskey dated these vessels to EHII, but said that they could not be used to date the burial (1962, 211).

However, Buck considered the burial not only to be of EHIII date, but also to indicate that the custom of using intramural pithos-burials began earlier than was thought (1966, 204). In their later paper, the van Effenterres made a special comment about the exceptionally early date of this intramural burial and insisted on it being correctly dated to EHII (1975, 36 n.6). But Pullen excluded this grave from his discussion about EH burial customs, because he thought it was too controversial (1985, 133).

Overall, I believe that Caskey overlooked the position of the EHII bowl, which is such that in my opinion it can very well be used to date the burial to the EHII period.

Four intramural pit burials of MH date were found in Area B (Dor *et alii* 1960, 122-123, pl.8:45-48) and one possible cist tomb from this phase was found in probe 4, Area D (1960, 46, 120, pl.12:31). Blackburn suggested that a total of 13 MH intramural burials was found at Kirrha (1970, 228, 232).

The Corycian Cave - Phocis (K:6)

Geographical setting: At 1360 m a.s.l. on the southern part of Mt. Palaiovouna above Delphi.

Excavated: In 1970-1971.

Reference: Touchais 1981.

Study periods represented: EHII, but mostly Neolithic. This site is not considered to be a settlement site, but some sort of activity took place in the cave during the EHII period as evidenced by the pottery (see Touchais 1981, 118-121, 137 fig.23:317, 138, 171-172).

Presence of a "destruction" layer: No.

Médéon - Phocis (K:7)

Geographical setting: This is an acropolis site, also known as Ayios Theodoros, located on the E coast of Antikyra Bay.

Excavated: In 1962-1963.

Reference: Vatin 1969.

Study periods represented: EHII-EHIII and MH material has been found (Vatin 1969, 37-43), but is not published.

Presence of a "destruction" layer: No.

"New" features within the ceramic repertory: A fragment of a Light-on-Dark Pattern-painted bowl of EHIII date was recovered (Vatin 1969, 37-38 fig.33) as well as a fragmentary tankard which was made on a primitive potter's wheel according to Vatin (1969, 37).

Apsiphia Island - Phocis (K:8)

Geographical setting: A small island in Itea Bay opposite the Galaxidi village.

Excavated: In 1946.

References: Lerat and Chamoux 1947-48; Lerat 1952.

Study periods represented: EHII pottery was found (Lerat and Chamoux 1947-48, 54; Lerat 1952, 159-162). The site was abandoned after EHII according to Lerat (1952, 162). The finds are not published.

Presence of a "destruction" layer: No.

4. A review of the disturbances

We have seen that Caskey, in 1960 and repeatedly until 1979, interpreted the archaeological data as if there had been two waves of newcomers into the study area, one at the end of EHII (which he called "an invasion"), and another wave at the end of EHIII (in this case he changed the terminology from an "impulse" to "immigration" or "infiltration"). The sites included in this scheme of events were found in an area stretching from east-central Greece to Argolido-Corinthia in the Peloponnese. This hypothetical interpretation has forcefully gained its way into many excavation reports since Caskey's epoch-making synthesis of the turbulent ending of the EH period published in 1960. The data from the central and western Peloponnese were too fragmentary at the time to allow this area to be included in Caskey's historical outline. However, in the present study the entire Peloponnese is included.

In this chapter I will look at the pertinent data in a more comprehensive manner than in the catalogue, and will begin with sites containing "destruction layers" at the end of or during EHII or EHIII, or both. Subsequently I will look at sites which seem to have been deserted at some time during these periods. The discussion will end with sites which possibly had continuous habitation throughout the EHII-EHIII-MH periods, and which lack destruction layers. Through this approach we will see whether chronological or geographical patterns appear which make Caskey's theory tenable today.

Finally, at the end of this chapter data from different surface surveys, which have been or are in the process of being carried out within the study area, will be added.

4.1. Sites with late EH "destruction" layers

One of the cornerstones in the historical outline Caskey presented was the "destruction layer" found at the end of EHII at Lerna (1960, 285-303; 1971, 806-807; 1986, 9-30). After this "destruction" dramatic changes took place at the site, and a revision of the historical interpretation of what happened in southern and east-central Greece during the EH period seemed necessary. Let me quote Caskey in *CAH* at some length:

> Then toward the end of the millennium there came another marked change, with sudden violence in the Argolid, perhaps

> more gradual in central Greece...The new phase, which we call EHIII, appears clearly at Lerna as a stage of culture quite different from that which went before, reflecting an invasion by people of other antecedents, who came we know not whence..these people stayed and established themselves over a considerable area...There are puzzling gaps...for example in Attica... Almost certainly population was reduced along the whole eastern coast of central Greece...At more than one site there were...[also] distinct breaks at the close of EHIII (1971, 806-807).

In this section we will look at the sites within the study area which have produced evidence of a "destruction" layer or layers, at some time during the later part of the EH period, i.e. EHII-EHIII. It is important to remember that the word "destruction" or "destruction layer" is used in this study whenever the *excavator* has used this term. Special concern will be given to the extent of these destruction layers, with the aim of discovering if the excavator has pressed the material in order for it to fit into Caskey's theory. In other words, how substantial is the destruction layer and is it correct to use the data as evidence of a destruction layer in the first place?

Whenever it is possible to correlate the individual destruction layers with the stratigraphy at Lerna this is done. However, as this is far from always the case, e.g. with the excavated data prior to 1976 at Tiryns, the dates given to these destruction layers are not comparable. In other words, we have two different sets of data compiled in Fig.2: those destruction layers which are correlated with the refined stratigraphy at Lerna and those which are not. Still, by doing a more detailed dating it will be possible to decide whether it is tenable to hold on to two synchronous waves of newcomers; moreover we will see if geographical patterns emerge.

I will begin this overview of the destruction layers with the ones documented in Argolis, then move on to Corinthia and the other districts in the Peloponnese (counter-clockwise) in order to conclude with the east-central area beginning with Attica. At first the dates and the extent of the individual destruction layers are discussed, and whenever possible I have tried to make a correlation between the extent of these destruction layers and the total area excavated (of the EH settlement).

The obvious starting point is Lerna where the "House of the Tiles" was destroyed by fire at the end of EHII:D (No.A:1). The extent of this "destruction" is limited to the area of the house itself, about 12 x 25 meters or 300m^2, which was covered inside and just around it by a 0.7-1 m thick layer of debris. It seems odd that actually *no* other architectural remains

contemporary to the "House of the Tiles" were found at Lerna, where 2400m^2 were excavated. The excavator explained that the area which was exposed constituted only about one-seventh of the surface of the mound, which to my mind could very well explain the dearth of contemporary material.

The material from Tiryns has been divided in the catalogue into the following parts: the "Oberburg", the "Mittelburg", the "Unterburg" (divided into the "old excavations" prior to 1976 and the "new excavations" post-1976) and the Lower Town. In the "Oberburg" a large circular building, the "Rundbau", was destroyed by fire at the end of EHII, possibly at the same time as when the "House of the Tiles" burned down at Lerna (No.A:2,"Oberburg"). The destruction layer is described as partly covering the ground floor of the circular building, which is 28 m in diameter, and it consisted of burnt mudbricks and ashes in several layers. Whether the house E of the "Rundbau" was destroyed at the same time is not altogether clear. At least Müller considered wall 15, i.e. the house E of the "Rundbau", to have been destroyed at the same time as the "Rundbau" and this would fit quite well with the stratigraphy as exposed in the excavations made in 1984, when a destruction layer dated to the end of the EHII period was found on the E side of the "Rundbau". Furthermore, we should remember that wall 15 was only 3 m away from the "Rundbau" and therefore most likely also was affected when the larger building was on fire. No details have been published about the destructions of the two apsidal houses of early EHII date, which were found in the "Oberburg".

In the case of the destruction layer found in the "Mittelburg" we have only brief remarks made by Schliemann and Müller to go on (No.A:2,"Mittelburg"). It is worth noting that Müller says that several houses were destroyed at the same time as the "Rundbau", but in the excavation reports he never substantiates this statement in any way.

Regarding the "old excavations" undertaken in the "Unterburg" a destruction layer, dated by the pottery to the end of the EHII period, was discovered in the NW part of the excavation area (No.A:2, old excavations). The layer in question was about 0.4 m thick, consisting of mudbrick detritus, ash and charcoal. It was recorded in a small trench about 2 m^2 in size, which taken by itself prohibits wider speculations, I think.

However, more detailed information is supplied by the new excavations in the "Unterburg" at Tiryns, made between 1976 and 1985 (No.A:2, new excavations). It is now evident that the settlement was destroyed by fire on four different occasions during the EHII and early

EHIII periods. The last one of these four destructions occurred at the end of phase 9, which has been correlated with Lerna IV:1. These four fire destructions seem to be of rather substantial character (the excavator Kilian speaks of "settlements" being destroyed). For instance "settlement 8b", which was destroyed by fire at the end of EHII (Lerna III:D), is represented by R 142-145-148 which is a room complex covering an area of about 12 x 20 m (incidentally this size compares well with the dimensions of the "House of the Tiles" at Lerna). No further details are given about the extent or make-up of these four destruction layers.

Finally we come to the evidence of possible destruction layers in the Lower Town at Tiryns (No.A:2, Lower Town). An ash-layer, which divided EHII and EHIII strata, was apparently found in an area SE of the acropolis. Area H, east of the "Oberburg", has produced a 0.6 m thick sterile layer between EHII and EHIII strata which implies that the area was deserted for some time (possibly due to flooding). There are numerous other signs of discontinuities in the habitation of the Lower Town especially after the EHII period, but the extent of these is not recorded in any detail.

Moving geographically from Tiryns towards the NE we come to Berbati (No.A:6). At this site two houses of EHIII date were destroyed by fire which resulted in a 0.2-0.3 m thick ash-layer in an area covering about 88 m^2. At another point in the excavation report the excavator actually says that the whole southern slope was devastated by fire and that a thick layer of ash separated EHIII material from MH material. This would mean that an area which I have estimated to be about 825 m^2 was covered by the destruction layer. Comparable sherd material found at Lerna has pinpointed the destruction of this site to the very end of EHIII, after phase 3 of Lerna IV.

At Asine a destruction layer was found which was described by the excavators as dividing EHIII material from MH material (No.A:11). This destruction layer, reflected in a 0.15-0.2 m thick burnt layer in probe G14 (said to be 4m^2 in size and 6.2 m deep), was allegedly present at the site whenever MH material was found superimposed on EH strata (it is impossible to estimate the total area when these criteria applied). The date of this destruction layer was changed to EHII by Caskey, as he noted that the debris contained roof tiles similar to those found at Lerna and Tiryns which were of EHII date. Such a date for the destruction layer is supported by Persson's own excavation notebook, as the layer apparently contained sherds of sauceboats besides burnt mudbricks and tiles. Several strata below this destruction layer are admittedly contaminated with later

pottery material, but this is such a minute amount that the EHII date should not be changed. Moreover, the tiles found in the destruction layer suggests a synchronization with Lerna III:C-D for the destruction.

A deep destruction layer at the end of the EHII period was said to extend into two of the baulks of a small trench at Synoro (No.A:12). This destruction layer, of unknown dimensions and character, has been described as possibly extending over the whole site, but it could also have been the visible remains of a bothros! Thus, Döhl's suggestion that the destruction layer at Synoro was part of the "catastrophical horizon" between EHII and EHIII seems a bit exaggerated. Besides, a closer dating of the EH material from the site and correlation with Lerna's stratigraphy indicated that nothing was found which postdated Lerna III:B. Overall, I think that Synoro might have been destroyed and subsequently abandoned sometime during the EHII:B period, but the evidence of a destruction layer is rather elusive and the report can be taken as an example of being influenced by Caskey's invasionistic theory.

At Zygouries ten houses of EH date, which were found spread out over the entire mound, were destroyed simultaneously in a fire (No.B:1). It is not possible to figure out the exact dimensions of the EH settlement, but one estimate indicates that 450 m^2 of the central area was excavated, thereby exposing seven of the EH houses. Blegen, who excavated at Zygouries, dated the destruction to the end of the EHIII period, whereas Caskey in 1960 changed the date to EHII and used this site as support of his invasionistic hypothesis. However, if the abundant amount of Yellow Mottled ware at Zygouries is valid as a chronological indication, this site might have been destroyed before the "House of the Tiles" at Lerna. Another indication of this is that no pottery corresponding to Lerna III:D has yet been identified at the site. Pottery material equivalent in date to Lerna IV:2 has been found at Zygouries, but at a later stage of EHIII the site was abandoned and remained deserted until late in the MH period. Some traces of an earlier destruction layer at the site have been mentioned by Pullen, but he did not give any details about it. In sum, I think that there are some indications of a hiatus in occupation of the site between EHII:C and EHIII:2 (compared to Lerna's stratigraphy), which is repeated between EHIII:3 and late MH. Blegen did not give any details about the character of the destruction layer or the exact dimensions of it, but I do not think that there is any reason to doubt the existence of such a destruction layer.

The results of the old excavations made in the 1920s at Tsoungiza in Corinthia conformed to the general picture held at that time, i.e. the entire

EHIII settlement was believed to have been brought to an end by fire (No.B:2). This seems to have been corroborated in more recent excavations as a destruction layer at the end of the EHIII period is said to have been found, but no details are published yet. Furthermore, the site is said to have been abandoned towards the end of the EHIII period until the end of the MH period, but it is not known if this was the result of a destruction of the settlement or not. However, some details have been published about a room, 12 m^2 in size, which was destroyed sometime after an early stage of EHII (correlated with Lerna III:C, early). The room in question was covered by a thick deposit of burnt remains. Subsequent to this fire there is a hiatus in the occupational history of the site until the second subphase of the EHIII period. It is estimated that 270 m^2 of the EH settlement was exposed, but in disconnected areas, by the excavations in the 1980s. Thus, the burnt room constitutes but a fraction of the total extent of the settlement area. Still, if we consider the destruction layer in connection with the lack of material datable to the subsequent phase of EHII:D, I believe that it is reasonable to suggest that the settlement at Tsoungiza was destroyed sometime during EHII:C. Consequently there is a discrepancy between the destructions at Lerna (EHII:D) and Tsoungiza (EHII:C).

At Korakou (No.B:8) the EH material was said to have been found primarily in eight deep pits sunk into the mound at different places and the MH material was partly found in the same pits. Drawing on this evidence Blegen proposed that a well-marked layer of ash seemed to extend over the whole site dividing EHIII from MH material. As no further details were given by the excavator about the destruction layer we cannot estimate its extent over the site, but have to rely on Blegen's statement that it seemed to cover the entire settlement site. Concerning the dating of this material we know that two subphases of EHIII material have been found at the site, one early phase (comparable to Lerna IV:1) and one containing later EHIII pottery (including Lerna IV:2 material). I would like to suggest that the ash-layer which Blegen is said to have seen at the bottom of the later EHIII level included pottery which can be correlated with Lerna IV:2 material and *not* pottery of an earlier EHIII phase. Consequently I propose for the destruction layer at Korakou a tentative date corresponding to Lerna IV:2.

Regarding Fossey's excavations at Vouliagmeni/Perachora (No.B:12) nothing definite can be said as the finds remain largely unpublished. The excavator has said that a considerable pile of destruction debris covered a large building, which was destroyed by fire at the end of the EHII period.

As this statement is not accompanied by any details we cannot make any further comments about the alleged destruction layer.

In Achaia we have evidence of destruction layers at two sites: Aigion (No.C:1) and Teichos Dymaion (No.C:2). Incidentally these sites are the only two settlement sites in the region which in excavations have produced EHII or EHIII material and therefore are included in the catalogue. Recent excavations at Aigion (No.C:1) have documented substantial destruction layers, occasionally 0.6 m thick, at a couple of places in the modern town. In the first instance the destruction layer is tentatively correlated with Lerna III:C as the debris contained a seal impression said to be paralleled by one found at Lerna which is datable to this phase. In another area, adjacent to the previous one, an apsidal house was destroyed by fire and subsequently the area was abandoned for some time. This house is dated by the excavator to the last of four subphases of EHII, but it is not possible to correlate these subphases with the stratigraphy at Lerna due to the fragmentary information. The following building phase is divided into three subphases and is said to be of EHII/III date. Once again a thick ash-layer was found which ended the EH habitation. Sauceboats are still found during this phase, but in a decreasing number; therefore I would like to suggest, very tentatively, that we are dealing with the last subphase of EHII (synchronous with Lerna III:D). We cannot at present say anything about the extent or character of these destruction layers.

Teichos Dymaion (No.C:2) experienced a fire destruction between EHIII and MH. No details have been published concerning this destruction layer either, but there does not seem to be any reason to doubt the date given by the excavator, as EHIII material and MH material actually were found at the site and were recognized as such.

Strephi in Elis (No.D:3) was dug in rescue excavations between 1967-1968. Despite the fact that section drawings were lacking and that she did not partake in the excavations herself, Koumouzelis managed to isolate and define three subphases within the EHII period. The settlement of phase two ended with a fire destruction as ash was found everywhere, and this phase has tentatively been synchronized with Lerna III:C. Koumouzelis proposed that this fire was accidental since no changes were seen in the pottery sequence. Phase three is dated to an advanced phase of EHII, i.e. Lerna III:D, and this phase is said to have ended with a flooding as a 0.2-0.6 m thick layer of pebbles was found over the EH remains. Due to our fragmentary knowledge about the character of the fire destruction

and the subsequent pebble layer covering the last EHII remains, we cannot make further comments about them.

At the so-called New Museum site in Olympia (No.D:4) Koumouzelis once again had to deal with previously excavated material, lacking first-hand information and section drawings. This fact has unfortunately resulted in some mixup of the pottery and thereby also of the stratigraphy as described by her. The EHIII pottery was divided into two subphases supposedly divided by a destruction layer. But the pottery found in both the "first" and the "second" subphase is paralleled by pottery in Lerna IV:1-2; besides, secondary burning has been recorded on sherds which were found both in and above the so-called destruction layer. Moreover, Koumouzelis does not give any further details about the extent or the make-up of this layer. Thus, the alleged destruction layer at the New Museum site at Olympia is of a rather elusive nature and it is questionable if we should talk about a "destruction" at all. However, if we accept that the site was destroyed this can be broadly correlated with Lerna IV:1-2.

A destruction layer has been documented at another site in Elis, namely Ayios Dhimitrios (No.D:8). The excavator tentatively synchronized this layer with the destruction of the "House of the Tiles" at Lerna and with the sudden destruction evidenced at Voidokoilia in Messenia (see below). The destruction debris was found primarily on the floor of a room which measured about 12 m^2, while EH material is said to have been found in almost every one of the 25 trenches which were dug, together covering an area of ca. 480m^2. Even if the destruction layer must be considered to be of limited extent when related to the total excavation area, the fact that nothing datable to the following EHIII period has been identified at the site suggests to me a similar phenomenon as the one inferred at Tsoungiza in Corinthia (No.B:2). Consequently I do not think that we have to doubt that this site was destroyed and subsequently abandoned.

Zachos, who excavated at Ayios Dhimitrios, wondered if an earthquake could have struck this site in Elis and Voidokoilia in Messenia (No.F:3) simultaneously. The evidence he used to suggest that a synchronous destruction had happened also at Voidokoilia was that pottery, similar to that found at Ayios Dhimitrios, had fallen off a shelf in the NNE section of the excavation area at Voidokoilia. In this instance I believe that Zachos has overinterpreted the evidence.

However, the excavator of Voidokoilia has mentioned that a thin ash and sand-layer was found covering the last remains of the EH settlement, which is estimated to have extended over about 900 m^2. As nothing has

been found at the site which can be securely dated to the EHIII period, we seem to have a parallel phenomenon to that documented at Tsoungiza (No.B:2) and at Ayios Dhimitrios (No.D:8), where I concluded that the sites had been destroyed and subsequently abandoned.

At Asea in Arcadia (No.E:1) the youngest datable pottery vessel found in the destruction layer has been correlated with Lerna IV:2 material. Consequently I suggest an EHIII:2 date for the destruction layer. Holmberg said that a ca. 0.2 cm thick ash-layer separated the EH material from MH over the entire excavated area, which I have estimated to be about 1200 m^2. There does not seem to be any reason to doubt that a destruction layer existed at the site even if more details about its make-up could be asked for.

Leaving the Peloponnese behind, I shall proceed by looking at the pertinent data in east-central Greece starting with Attica. Ayios Kosmas (No.H:4), the coastal site not far south of Athens, suffered a fire destruction. Mylonas, who excavated this site, described the destruction layer as a ca. 0.4 m thick burnt layer, which he had documented in three different trenches spread out over the site. The excavator originally dated the destruction layer to the end of EHIII, but most scholars would agree with Caskey's redating of it to EHII. Moreover, I think that the last EHII material at the site can be correlated with Lerna III:D material. Even though the destruction layer was documented in three different trenches, isolated from each other, these were placed so as to cover, more or less, the entire EH settlement area. This fact, taken together with the absence of any pottery from the subsequent EHIII period, makes the evidence quite clear in my opinion that Ayios Kosmas was destroyed by fire sometime during or at the end of EHII:D.

Settlement V at Kolonna on Aigina (No.H:5) also succumbed in a fire. This fire destruction resulted in a 0.2-0.4 m thick layer of debris covering the exposed houses of City V in addition to three of the alleys and streets. The city wall of settlement V was likewise ruined; therefore I think that we can assume that the destruction debris was found extending over the entire excavated area, which is estimated as about 2400m^2. This destruction debris included pottery material of the third subphase of EHIII when compared to the stratigraphy at Lerna.

A deep stratigraphical section exposing up to 17 strata of both EH and MH date was made at the coastal mound site named Drosia in Boiotia (No.i:3). The excavator remarked that an EH destruction layer was found, but he did not give a more precise date and it is impossible for us to date it by drawing on the very fragmentary report which has been published.

Thus, we can only register that a seemingly substantial EH destruction layer has been found at the site for which we lack a more exact date and indications of the extent.

On numerous occasions destruction layers have been documented at Thebes (No.i:6). However, at the same time as an apsidal house, covering an area of ca. 64 m^2, is said to have been burnt down, another apsidal house, contemporary with the previous house, and estimated to be about 140 m^2 in size, managed to stay intact. In both these instances the houses have been dated through the associated pottery to a late EHII phase (Group B or Lefkandi I), which we can correlate to Lerna III:D. It was recently suggested that the *entire* Kadmeia was destroyed by fire at the end of the EHII period. This statement cannot be supported in its entirety, but as the occurrences of destruction layers datable to the late EHII phase increase in number I think that it becomes more plausible to support a modified version of this suggestion, meaning that large parts, but not the entire settlement at Thebes, probably succumbed in a fire at the end of the EHII:D period. Furthermore, destruction layers dated to the EHIII period have on several occasions also been documented at Thebes.

Overall, I would suggest that Thebes was destroyed, more or less extensively, twice, initially at the end of EHII:D and then again possibly at the end of EHIII. It is impossible to correlate the extent of the different destruction layers with the total area which has been excavated, as the modern town of Thebes is superimposed on the EH settlement and only occasionally are any details given about the dimensions or the make-up of the individual destruction layers.

At Eutresis (No.i:7) the houses of EHIII date showed signs of burning and some of their walls were partially overthrown. At several places a 0.2 m thick ash-layer was found covering the last remains of EHIII date. In the supplementary excavations made in 1958, a 0.25 m thick ash-layer was documented in trench B dividing EHIII from MH material. I have calculated that the destruction layer, which was found at three different places on the site, covered at least 130 m^2 out of an estimated total of 575 m^2 (where MH was found above EHIII material). Thus, there can be no doubt, in my view, that the site was destroyed at the end of the EHIII period.

Bulle, who excavated at Orchomenos, was of the opinion that a violent destruction destroyed the settlement, represented by the so-called "Hauptbothrosschicht" (meaning the EHIII layer), and that a new settlement was built afterwards (No.i:8). The excavator recorded numerous destroyed mudbrick walls and the clearest evidence of a

destruction layer was documented on the floor associated with the apsidal house K44. It is not possible to correlate the destruction layer with the total area of excavation, which is estimated to exceed 1500 m^2. However, I believe that there are enough indications of a destruction layer at Orchomenos for us to suggest, tentatively, that the settlement was destroyed by fire at the end of the EHIII period. Thereby, the fate of Orchomenos seems to parallel that of Eutresis.

The site Lilaia in Phocis (No.K:4) is situated just west of the borderline between the nomoi Phocis and Phthiotis. In 1978, Loyola University from Chicago made three small trenches at this site checking the stratigraphy and the dating of the surface material picked up in a survey of the area. A destruction layer more than one meter thick was found, which included typical EHII pottery. But we cannot be more specific about the dating of this destruction layer, or of its extent, before more details are published.

I will end this survey of destruction layers found in the study area by mentioning Kirrha in Phocis (No.K:5). Initially the excavators said that a thick destruction layer consisting of charcoal, ash and burnt mudbricks, was found which covered the EH remains (in a later paper it is said that an archaeologically sterile layer, exceeding one meter, was found above the EHII material). The date of this destruction layer was changed from EHIII to EHII once equivalent material was published from Lerna. The destruction layer was documented in three deep probes, in average about 4 meters in diameter. EH architectural remains were recorded in areas B and D, found 50-60 meters apart; consequently I assume that the EH settlement covered the whole area between these two areas. As the destruction layer, which is quite substantial, has been documented at three different places spread out over the excavated area, I do not think that there is any reason to doubt that the site was destroyed at the end of the EHII period. However, we cannot come closer in dating the destruction layer as the exact find context of the pottery from Kirrha is rarely mentioned; besides, the Lerna pottery has not yet been sufficiently published.

The information dealt with so far in this chapter has been compiled in Fig.2. It is now possible to make the following observations regarding the dates of these alleged destruction layers, their extent, and whether chronological or geographical patterns can be seen. I will begin with those dated to the EHII period.

1) At four different settlement sites we can say with some degree of confidence that a destruction layer has been found which occurred some-

time during or after phase D of the EHII period (as defined at Lerna). These sites are: Lerna (No.A:1), Tiryns (No.A:2, the new "Unterburg"), Ayios Dhimitrios (No.D:8) and Ayios Kosmas (No.H:4). In the cases of Voidokoilia (No.F:3) and Thebes (No.i:6) an EHII:D date is of a more tentative nature. When it comes to the site Strephi in Elis (No.D:3) we should note that the site was flooded probably during EHII:D. At two other sites, Perachora/Vouliagmeni (No.B:12) and Kirrha (No.K:5), the excavators have said that the destruction happened at the "end" of the EHII period without being more specific, and it has not yet been possible to correlate these destruction layers with the stratigraphy at Lerna. Asine (No.A:11) was believed by its excavators to have been destroyed at the end of the EHIII period, but this date has been changed to EHII and is tentatively correlated in this study with a Lerna III:C-D date. One of the destructions of Aigion (No.C:1) has very tentatively been dated to EHIII:D.

2) In one, or possibly two, instances we can date a destruction layer to phase C of the EHII period (as defined at Lerna). This means that the destructions of Tsoungiza (No.B:2) and possibly also Zygouries (No.B:1) occurred before the majority of the EHII destructions. Destructions documented at Aigion (No.C:1) and Strephi (No.D:3) are more tentatively suggested likewise to have occurred during EHIII:C.

3) In the case of Synoro (No.A:12) we have a site which was believed to have been part of the catastrophe at the end of EHII. However, once the pottery could be correlated with Lerna's it turned out that the site probably was deserted at some time during EHII:B, maybe subsequent to a destruction of the site.

4) At Zygouries and Voidokoilia the excavators have said that the destruction layers were found over the whole site. In the case of Asine, such a layer was said to have been found wherever MH material was superimposed on EHIII material. Even if the date of this destruction layer has been changed, I assume that the description of where the destruction layer was found remains valid. However, this is but an assumption that cannot be verified, except by new excavations. The only tangible evidence of the destruction layer at Asine was documented in a 4 m^2 large trench.

5) In the cases of Tiryns (No.A:2, the "Mittelburg"), Perachora/Vouliagmeni (No.B:12), Aigion (No.C:1) and Strephi (No.D:3) nothing has been said about the extent of the destruction layers (except of the second destruction layer at Strephi where the thickness of the pebble

layer was mentioned).

6) The extent of the destruction layers documented at Lerna (No.A:1) and Tiryns (No.A:2, new "Unterburg") seems substantial enough to support the belief that these sites were destroyed more or less entirely. However, the destruction layers recorded by the old excavations of the "Unterburg" and in the Lower Town at Tiryns (No.A:2) and at Tsoungiza (No.B:2), Ayios Dhimitrios (No.D:8), Ayios Kosmas (No.H:4), Thebes (No.i:6), Lilaia (No.K.4) and Kirrha (No.K:5) are of more limited character. But if we see the destruction layer in conjunction with data which suggest that the site in question was abandoned afterwards, I believe that it is quite certain that also Tsoungiza, Ayios Dhimitrios and Ayios Kosmas were destroyed. A growing body of information about Thebes indicates that large parts of this site likewise was destroyed by fire, even though some houses managed to stay intact. That Kirrha in Phocis was burnt down should not be doubted as the destruction layer was found in several different trenches spread over a fairly large area. The limited evidence supplied by the old excavation of the "Unterburg" and by the excavations in the Lower Town at Tiryns is supported by the new excavations. Among this group of seven sites it is only at Lilaia in Phocis that we cannot ascertain whether the whole site was destroyed.

7) Concerning the geographical patterns we can conclude that sites in every region, except Arcadia and Laconia in the Peloponnese and Euboia, experienced local destruction layers sometime during the EHII period.

Regarding the "destruction layers" dated to the EHIII period, the following observations can be made concerning their dates, extent, and chronological or geographical patterns.

1) In the new excavations of the "Unterburg" at Tiryns (No.A:2) a destruction layer has been dated to EHIII:1 (as defined at Lerna); at Korakou (No.B:8) and at Asea (No.E:1) the destruction layers have been dated tentatively to EHIII:2, while Berbati (No.A:6), possibly Tsoungiza (No.B:2) and certainly Kolonna (No.H:5) have destruction layers dated to EHIII:3. A questionable destruction layer which was found at the New Museum site at Olympia (No.D:4) has been correlated with EHII:1-2 material at Lerna, and it is not possible to come closer in dating this layer.

2) At four sites destruction layers are said to date to the "end" of the

EHIII period, but they cannot be correlated with Lerna. These sites are Teichos Dymaion (No.C:2), Thebes (No.i:6), Eutresis (No.i:7) and Orchomenos (No.i:8).

3) The extent of the destruction layers is fairly substantial at Tiryns, Berbati, Kolonna and Eutresis. At Tsoungiza and Asea they are said to cover the entire excavated area, and at Korakou whenever MH material was found superimposed on EH. In the cases of Teichos Dymaion and the New Museum site at Olympia the dimensions of the destruction layers are not indicated at all; and for Thebes we have only once or twice an indication of the thickness of a particular destruction layer. The extent of the destruction layer at Orchomenos has not been possible to estimate, except in disconnected areas, but I have considered these indications substantial enough to accept, tentatively, that also Orchomenos was destroyed by fire at the end of the EHIII period.

4) The evidence of a destruction layer at the end of the EHIII period is much less obvious than at the end of EHII, with only two destruction layers, at Berbati and Kolonna, definitely dated to the EHIII:3 phase. Tsoungiza, where the extent of the destruction layer is unknown, makes a total of three destroyed sites at the end of EHIII. If to these we add the four sites said to have been destroyed at the end of EHIII (Teichos Dymaion, Thebes, Eutresis and Orchomenos) we have in total seven settlement sites, which possibly were destroyed at the end of EHIII.

5) The regions Messenia, Laconia, Euboia and Phocis seem to lack destruction layers during the EHIII period.

6) The new excavations of the "Unterburg" at Tiryns, in addition to Korakou in Corinthia and Asea in Arcadia, possibly also the New Museum site at Olympia in Elis, as well as Berbati in Argolis, Tsoungiza in Corinthia and Kolonna in Aigina, have produced evidence which shows that destruction layers have occurred now and then throughout this period.

4.2. Sites whith gaps in post-EHII material

In the following section I will present the excavated sites which have produced EHII material, either stratified or not stratified, but where MH and/or EHIII material is lacking. It is important to remember that

whenever a site has been considered to be "deserted" or "abandoned", this statement rests in all cases on negative evidence, i.e. pottery of a certain period has not been found at that particular site. The first part of the chapter will be devoted to sites which have produced what might be stratified EH material and which have been published in some detail (they are compiled in Fig.3). In a few instances these sites are preceded by a "destruction layer" and are therefore also included in the previous Fig.2. In the last part of this section I have sampled the sites which carry less weight as evidence that the site in question was deserted at the end of the EHII period, either because they are not well published or because the material has not been found stratified (Fig.4).

Berbati in the Argolid (No.A:6) possibly experienced a gap in habitation during EHIII:1. At Prosymna (No.A:7) both EHII and EHIII pottery has been collected, but it was recently suggested that the site experienced a hiatus between late EHIII and late MH. Synoro (No.A:12), albeit dug in only one day, produced some stratified pottery which has been dated to EHII:B. It is not impossible that the site was destroyed before being abandoned some time during this subphase. After this it remained unsettled until the MH period. The hiatus in the occupational history of Synoro was connected by Döhl with the fate of the neighbouring site Kandia (No.A:13), because he inferred an increased importance during the EHIII period at Kandia. However, this connection seems unlikely as we have seen that Synoro was abandoned well before the EHIII period began. Ayia Marina on Spetses (No.A:16) has been considered to be abandoned after the EHII period as nothing of EHIII-MH date was found by the excavator of the site.

It has been proposed that Zygouries (No.B:1) and Tsoungiza (No.B:2) in Corinthia experienced a similar hiatus in the occupation as at Prosymna, between a late EHIII phase and a late MH period. I have tentatively dated the destruction layer found at Zygouries to EHII:C, after which period the site might have been deserted until EHIII:2. At Tsoungiza the most recent excavation results have indicated that the site was abandoned at least twice towards the end of the EH period. The first time was after the destruction of a house at the end of EHII:C and continued until EHIII:2. The second time was, as already mentioned, between late EHIII and late MH.

A likely case for a connection like the one allegedly seen between Synoro and Kandia in Argolis can be made for two sites in Corinthia. At ancient Corinth (No.B:6) nothing has been found which can be dated to the EHIII or the MH period. This picture fits well with the material found

at the neighbouring site Cheliotoumylos (No.B:4), only 800 meters distant, where both EHIII and MH material has been found on the surface. Of some reason Cheliotoumylos seems to have taken over the role of Corinth when the habitation ceased at that site. Another Corinthian site, Perachora/Vouliagmeni (B:12), experienced a "destruction" dated to the end of the EHII period and was probably abandoned subsequently.

Strephi (No.D:3) in Elis was deserted at the end of the EHII period probably because the settlement had been flooded, which is evidenced by a thick layer of pebbles. The New Museum site at Olympia (No.D:4) was definitely settled during EHIII:1-2, but after that the evidence of occupation is very scarce. The other Olympian site, the Altis (No.D:5), was possibly abandoned at the end of the EHIII period or at the beginning of the MH period. Ayios Dhimitrios (No.D:8) experienced a hiatus between a transitional EHI/II phase and the last phase of EHII (synchronized with Lerna III:D). After this phase there is a hiatus again until early in the MH period.

I have ventured to suggest that stratified EHII pottery was found at Pylos (No.F:1), which dates the apsidal houses found at the site. As with all the excavated sites in Messenia, Pylos lacks EHIII material. The same is true of Voidokoilia (No.F:3) which was destroyed some time during EHII:D and subsequently deserted until MH times. The coastal site Akovitika (No.F:6) constitutes a parallel example to Strephi in Elis, in that it probably was flooded and then abandoned at the end of EHII. Akovitika was resettled during the MH period, whereas Strephi was not.

To date, two sites in Laconia have produced stratified EHII material, but lack EHIII pottery: Ayios Stephanos (No.G:1) and Kouphovouno (No.G:2). Kouphovouno might have been deserted during the MH period too, as nothing of such a date has been published from the site.

Concerning the situation in east-central Greece and starting with sites in Attica, the latest EHII material found at Rouf in Athens (No.H:3) has tentatively been correlated with Lerna III:C. After this period the site was abandoned, probably due to flooding. Ayios Kosmas (No.H:4) seems to lack EHIII material since the four Pattern-painted sherds, which originally were dated to the EHIII period, probably are of EHII date. MH material was recovered at the site, but has never been published. The EHIII material found in the mine at Thorikos (No.H:6) has been dated to early EHIII, after which period the mine probably was abandoned.

Askitario (No.H:8) was believed by its excavator to have been abandoned at the end of the EH period (meaning EHIII). However, it has been shown quite clearly that the latest EH material found at the site

should be dated to the EHII period. We can say with some degree of confidence that EHIII and MH material is lacking at Askitario.

Two kilometers north of Askitario lies Raphina (No.H:9) which, like Askitario, was excavated by Theochares in the 1950s. The excavator believed that Raphina was abandoned after the EHIII period because neither MH architectural remains nor MH strata were found in the excavations. But I think that this could be due to the element of chance, as admittedly both dark Minyan (gray or black?) and MH coarse ware were found by the excavator. Concerning the presence of EHIII material at the site, it has been suggested that the pottery from the two bothroi associated with House B should be dated to the early stages of the EHIII period. Thus, we can propose that there possibly was a hiatus in the occupation after an early EHIII phase until some time during the MH period. Finally, Mourteri, located on the east coast of Euboia (No.J:6), is a one-period site occupied exclusively during the EHII period. The sites discussed so far are compiled in Fig. 3.

In addition to the sites discussed above, I have compiled a number of excavated settlements in Fig.4, which carries less weight as evidence of abandonment at the end of EHII, because either they are not well published or the material has not been found stratified. In five instances EHII and MH pottery have been identified as surface finds at a site, while excavation of the same site has produced nothing but unspecified EH material. This is the case at Kazarma (No.A:10) in Argolis, Chersonisi (No.E:2) in Arcadia, Asteri (No.G:3) in Laconia, Vlicha (No.i:1) and Hypaton in Boiotia (No.i:4). The same criteria holds true for Lambaina (No.F:5) in Messenia except that no MH surface finds have been made here. Possibly stratified EHII pottery underneath MH pottery has been found in excavations, but remains inadequately published at: Argos in Argolis (No.A.4), Epidauros in Argolis (No.A:15), Aigion in Achaia (No.C:1), Papoulia (No.F:2) and Routsi (No.F:7) in Messenia, Palaiokastro in the Megarid (No.H:1), Oreio on Euboia (No.J:6) and Lilaia in Phocis (No.K:4).

Theochares has collected EHII and EHIII pottery, but nothing of MH date, at Nea Makri on the Attic east coast (No.H:10). None of this material has been published. Possibly stratified, but inadequately published, EHII material (where both EHIII and MH material seems to be lacking) was found in excavations at: Perachora/Heraion (No.B:11) in Corinthia, at Ayioryitika in Arcadia (No.E:3), at Kostoureika in Elis (No.D:2), and at Distomon (No.K:1) and Apsiphia island (No.K:8) in Phocis.

Unspecified, possibly stratified EH and MH pottery was found in excavations at Makrysia in Elis (No.D:6) and Plasi in Attica (No.H:13). Hope Simpson and Dickinson (1979, 99, 219) has specifically mentioned that EHII material was found at these two sites, but this cannot be verified by the published material from the excavations. In rounding up the discussion of this section, the following observations can be made:

1) A total of 23 sites is compiled in Fig.3. A break in occupation is seen after the EHII period at 13 sites: Ayia Marina on Spetses, Ancient Corinth, Perachora/Vouliagmeni, Strephi, Ayios Dhimitrios, Pylos, Voidokoilia, Akovitika, Ayios Stephanos, Kouphovouno, Ayios Kosmas, Askitario and Mourteri. At four of these sites the period of abandonment followed a fire destruction: Perachora/Vouliagmeni, Ayios Dhimitrios, Voidokoilia and Ayios Kosmas. It has been suggested that Berbati experienced a hiatus during EHIII:1, but was reoccupied during EHIII:2-3.

2) The same picture of abandonment after the EHII period is given by 21 of the 22 sites compiled in Fig.4, i.e. at all sites except Nea Makri on Attica, but in this case we must stress that their weight as evidence is hampered by different drawbacks mentioned in the text. At Aigion and Lilaia the period of abandonment possibly followed on a fire destruction at the site.

3) However, when a more detailed date has been porposed for the period of abandonment, the break at the end of EHII respectively EHIII become less clear cut.

4) In one case, there might be a connection between the absence of a particular pottery assemblage at one site and the presence of that same pottery assemblage at a site nearby. Such a connection can be inferred by the data collected at ancient Corinth and Cheliotoumylos.

4.3. Sites with possibly continuous habitation in EHII-MH

In this section we have collected all the sites within the study area which, in excavations, have produced pottery material which possibly spans the EHII-III and MH periods and which lack "destruction layers". There are 20 sites which follow this criteria and another six which more or less comply (they are compiled in Fig.5). It must be emphasized that the dating of the

material is very rough, measured by today's standards. Therefore we cannot, in any of the cases mentioned below, pinpoint the dates to the different subphases which have now been identified within the EHII and EHIII periods. The sad effect of this is that there are no instances where we can exclude the possibility that gaps exist in the occupation of these sites, in the same way as they have been shown to exist at, for instance, Tsoungiza in Corinthia or at Ayios Dhimitrios in Elis.[1]

In Argolis we have five sites which first of all seem to lack "destruction" layers, and secondly where pottery from the EHII-III and MH periods has been found in excavations. These sites are: Kephalari (No.A:3), Mycenae (No.A:5), Dendra (No.A:8), Midea (No.A:9) and Kandia (No.A:13). In Corinthia there are only two sites which follow these criteria: Aetopetra (No.B:3) and Gonia (No.B:7). Amyklaion in Laconia (No.G:2) also complies. In Attica are three such sites: Eleusis (No.H:2), Athens excluding Rouf (No.H:3), and Brauron (No.H:7). On Euboia, four sites appear to be continuously inhabited: Manika (No.J:1), Lefkandi (No.J:2), Eretria (No.J:3) and Amarynthos (No.J:5). In Boiotia I have suggested that Lithares (No.i:5) and Khostia (No.i:9) show continuity in habitation. Finally, in Phocis we have Ayia Marina (No.K:2), Drachmani-Piperi (No.K:3) and Medeon (No.K:7).

I have treated six sites as special cases in this section. Iria in Argolis (No.A:14) produced EH (EHIII) and MH material in excavations and possibly EHII as surface finds. Cheliotoumylos (No.B:4) in Corinthia produced EHII in an excavation and EHII-EHIII-MH as surface material. At Ayios Gerasimos (No.B:5) EHII-EHIII material was found in the excavations and MH on the surface. Phlius (No.B:13) produced EHII material in the excavations and both EHIII and MH sherds (one of each) in the recent surface survey of the site. Kleidi in Elis (No.D:7) produced EH material in an excavation and EHII-III-MH material as surface finds. Dramesi in Boiotia (No.i:3) produced both EHII and MH pottery material in excavations and EHII-EHIII-MH material as surface finds.

It is noteworthy that there are no excavated sites which can be said for certain to have been inhabited throughout the EHII-EHIII-MH period and which lack "destruction layers" in: Achaia, Elis (except possibly Kleidi), Arcadia and Messenia. In Achaia and Arcadia this can be explained by the

1. Recently the Nemea valley archaeological project documented a "dynamic and discontinuous pattern of ebb and flow" in site habitation in that region (Wright *et alii* 1990, 617).

fact that very few sites have been excavated in these regions, but in the case of Elis and Messenia this observation might be of some significance.

4.4. Survey results and settlement patterns

The last 20 years have seen a virtual explosion in the amount of archaeological surveys undertaken within the study area. Extensive surveys, where larger areas are covered, today seem somewhat old-fashioned and there is a tendency towards more intensive surveys being done, where as much data as possible is collected within a limited geographical area. Due to the complex character of the following section, it might be useful to describe how it is structured.

The section has two subdivisions, and the first part deals with one specific result of surface surveys, namely the temporal distribution of sites. I will begin with the extensive surveys in a chronological order, and will add the temporal distribution of excavated sites in these same areas as indicated in Figs.6-7. The first part ends with an overview of the intensive surveys carried out in the study area; I will begin by mentioning the surveys which are unpublished, and subsequently discuss those which are published or for which unpublished manuscripts have been available to this author. The data from the latter category are compiled in Fig.8 (it is noteworthy that it has only in one instance been possible to consider the relationship between an excavated site and intensive survey data, i.e. for the Berbati-Limnes survey). Finally a methodological remark is made concerning the temporal distribution resulting from three intensive surveys carried out in the study area.

The second part of this section begins with the presentation of some pre-1970 views of the geographical distribution of sites during the EHII-EHIII-MH period as drawn from the results of extensive surveys undertaken in Laconia, Arcadia, Messenia and Euboia. Two other aspects of settlement patterns are subsequently discussed where only more detailed intensive survey data can be used: whether a dispersed or nucleated pattern exists, and whether signs of hierarchical orders between sites can be discerned in the material. Finally, a few questions regarding how to interpret intensive survey data are discussed, and I will conclude the second part with an evaluation of the most complete data at hand concerning the changing settlement pattern at the end of the EH period in three restricted areas: the Karystos Bay area on Euboia, the southern Argolid, and the Berbati-Limnes area in Argolis.

Extensive surveys

Helen Waterhouse began her work in Laconia in 1936-1938 and continued after the war in 1956-1958. In the later years Waterhouse was assisted in the field by Hope Simpson and French (Waterhouse and Hope Simpson 1960, 67). The results of this survey have been incorporated in the *GAC* (used henceforth for Hope Simpson and Dickinson 1979) where the sites are dated according to subphases within the EH period (*GAC*, 108-125). Twenty-seven of the surveyed sites had EHII material but lacked EHIII, and of these 27, 14 also had MH material.[2] Three sites seem to be settled for the first time in the MH period.[3] A Laconian underwater site, Pavlopetri, 700 m NE of the island Elaphonisos, was surveyed in 1968. Typical EHII and MH pottery was collected at this site (Harding, Cadogan, Howell 1969, 113, 133-135). In addition to these surveyed sites EHII material has been found at four excavated sites, EHIII on one site and MH material on three sites in Laconia (see Fig.7).

Euboia has been a popular target for both extensive and intensive surveys. Many different scholars contributed to the extensive survey of the island which has been published in Sackett *et alii* (1966, 33-112). The survey work began in 1938-1940 and was revived and brought to an end in the 1960s. All EH sites were grouped together and gave a total of 42 definite EH sites[4] (sites with datings followed by a question-mark are not included) versus 28 definite MH sites (Sackett *et alii* 1966, 111-112). If we divide the sites according to the more precise dates given in the *GAC*[5] (excluding sites where the dates are followed by a question-mark), there are three sites which have material spanning the whole period from EHII-EHIII-MH[6] and 11 sites have EHII material, but lack EHIII.[7] Out of these 11 EHII sites as many as nine are resettled during the MH period. Ten other sites are not settled until in the MH period. These numbers add up to a total of 14 EHII, 3 EHIII and 22 MH sites.[8]

2. Included in this number are three sites which have been excavated, but lack stratified EH remains: C3?, C12, C62 in the *GAC*.

3. They are C21, C28, C37 in the *GAC*.

4. Five sites found by Sackett *et alii* are, however, not included by the *GAC*: sites 9, 28, 44, 71 and 79.

5. These are F68-F102, G84-G98 in the *GAC* (excluding the excavated sites F75, F81, F83, F85 and G88).

6. Sites F84, G84, G85 in the *GAC*.

7. Sites 10, 12, 19-21, 25, 31, 52, 63, 73 and 88 in Sackett *et alii* (1966, 33-112).

These figures have to be adjusted when we include the results from Sampson's extensive survey work on the island carried out during the 1970s and published in 1980 and 1985. Sampson had found EHII material at 17 additional sites[9] (1980a, 220-222) and 12 additional sites with MH material (1980a, 227-229). In 1985 Sampson recorded EHII material at three other sites.[10] Sampson had also found EHIII material at three of the sites previously walked by Sackett *et alii*[11] (1985, 336).

Thus, after this rather tangled overview of the different survey results on Euboia, the temporal distribution of sites on the island becomes the following: four sites were settled throughout the EHII-EHIII-MH period,[12] one site had both EHIII and MH material[13] and one site had exclusively EHIII pottery.[14] A total of 30 sites have EHII material, but lack EHIII, while nine of these 30 are resettled during the MH period. In addition to these we have a total of 20 MH sites on Euboia. In sum, we have 34 EHII sites, 6 EHIII sites and 34 MH sites. Adding the excavated Euboian sites to these numbers we get a total of 40 EHII sites, 10 EHIII sites and 39 MH sites (see Fig.7).

Arcadia was extensively surveyed during the years 1963-1964 by Howell (1970, 79-127). As many as 14 of the sites found in this survey had EHII material, but lacked EHIII.[15] Out of these 14 sites, five had MH pottery.[16] Eleven other sites were not settled until in the MH period.[17]

8. The discrepancy between these figures and the total numbers given in Sackett *et alii* is due to several reasons: not all sites are given a more precise date in the *GAC*; some sites have been excavated and are therefore excluded from these numbers; occasionally a couple of sites are collapsed and treated as one in the *GAC*.

9. Out of these 17 sites, 13 were not previously walked by Sackett *et alii*, while Sampson found EHII pottery at Sackett's sites: 9, 37, 69 (in the *GAC* indicated with EHII? and therefore not included among the 14 sites mentioned previously in the text) and 75. Sampson's sites 71 (EHII material) and 72 (EHII, MH material) are excluded in this discussion as they are located on the mainland (see Sampson 1980a, 158-159, 232-233).

10. These are sites nos.34, 41 and 53 in Sampson. I have excluded Sampson's sites 46-49 (EHII material) for the same reason as that mentioned above, namely that they are located on the mainland (see Sampson 1985, 337-338, 358-359).

11. These are sites 26, 36, 73 in Sackett *et alii* 1966.

12. F84, F92, G84 and G85 in the *GAC*.

13. F69 in the *GAC*.

14. Site 36 in Sackett *et alii*; this site is not included in the *GAC*.

15. These sites were: B2, B4-5, B7, B9, B11-12, B14-15, B22, B26, B31, B33-34 in the *GAC*. B34 Pheneos has been excavated but the EHII sherds were not found in the excavation, but on the surface.

16. Sites B12, B15, B31 and B33-34.

Three excavated sites in Arcadia (included in the catalogue) have produced EHII material, one of those had EHIII and two of them had MH material (see Fig.6).

In Messenia an extensive survey was carried out between the years 1959-1969 by the well-known Minnesota Messenia Expedition, in short *UMME* (McDonald and Rapp 1972). The results of this survey are also incorporated in the *GAC* (1979, 128-180). At least 12 sites in Messenia (not including the eparchies Olympia and Elis) produced EHII material, but lacked EHIII pottery. Three of these 12 also produced MH material.[18] As many as 39 sites seem to be inhabited for the first time during the MH period, occasionally after a Neolithic occupation.[19] With the excavated Messenian sites (included in the catalogue) we get the following total: 19 EHII and 47 MH sites (see fig.7).

Fossey recently published the results of his extensive survey of Boiotia conducted in the years 1965-1967, 1969-1971 and 1982 (Fossey 1988). A total of 97 sites were visited of which a fair amount also have been excavated, e.g. Eutresis (called Akropodhi by Fossey) and Orchomenos (called Skripou). The following statistics concern surveyed sites and excavated sites where the EH material has been recorded as found on the surface. Eight sites have pottery material spanning the EHII-III-MH period.[20] Five sites had only EHII pottery,[21] two sites had only EHIII material[22] and 13 sites had only MH material.[23] At 15 sites both EHII and MH pottery was recorded[24] and at three other sites apparently both EHIII and MH material was sampled.[25] A total count of the surveyed sites in Boiotia gives the following numbers: 28 EHII, 13 EHIII and 39 MH sites.

17. Sites B3, B10, B13, B17-B19, B23-B25, B28-B29 in the *GAC*.

18. D79, D137, D224 in the *GAC*.

19. These are D5, D11-12, D14-15, D18, D20, D35, D46, D51, D59-60, D63, D70, D76, D78, D80, D103, D106, D112, D114, D116, D119, D121, D125, D139, D202-203, D206, D209, D213, D215, D222, D225, D228, D234, D237, D241, D243 in the *GAC*. Of these 39: D5, D11-12, D35, D46, D80, D222, D234 are excavated, but as they were not settled until the MH period they are not included in the catalogue.

20. Fossey sites: 17 (G25 in the *GAC*), 18 (G34), 24 (G20), 27 (G17), 27 (G16), 68 (F59), 84 (G6) and Askra. Four of these have been excavated (18 Thespiai, 68 Schimatari, 27 Haliartos and 28 ancient Onchestos), but the EHII-MH material has been identified as surface finds by French (1972) and not in the excavations.

21. Fossey sites: 23, 48 (G8 in the *GAC*), 74, 92, 95.

22. Fossey sites: 19 (F63 in the *GAC*), 40 (F60).

23. Fossey sites: 1 (G18 in the *GAC*), 18a (G9), 30, 34, 56, 63 (G19), 65, 66, 67 (G2), 69, 71 (G42), 77, 82.

To these numbers we can add the excavated Boiotian sites (included in the catalogue) and their respective period of habitation, where nine were settled in the EHII period, seven in the EHIII period and nine in the MH period. In sum, we have 37 EHII sites, 20 EHIII and 48 MH sites in Boiotia (Fig.7).

Fossey has also been involved in an extensive survey undertaken in the Perakhora peninsula in the years 1974, 1978-1982. The results of this survey are not yet published, but this much has been gathered: the peninsula in EH times was divided into four geographical subregions, each dominated by one large site with satellite sites nearby; during the subsequent MH period the habitation continued in only two sites (Fossey 1987-88, 421-426).

Finally, for the sake of completeness, I will mention those sites which have been visited by one or both of the authors of the *GAC* and where material from our study period was found. First of all there are two sites in the Argolid, Vassa and the Methana Isthmus,[26] with EHII pottery recovered at one of them and both EHII and MH at the other.[27] Argolis is one of the best-explored regions in Greece, as far as excavations are concerned, and we can add the following temporal data from this region: 15 EHII sites, 11 EHIII and 15 MH sites (Fig.6).

Twelve sites in Corinthia had material of EHII date,[28] but lacked EHIII. Eight of these 12 had also MH pottery.[29] One site, Krenai/Krines,[30] seems to have material spanning the EHII-III to MH periods (French 1972, figs.10, 12-14). Two sites were possibly established for the first time in the MH period.[31] In addition to these sites there are the excavated Corinthian

24. Fossey sites: 2 (G37 in the *GAC*), 5 (G10), 10 (F58), 13 (G14-15), 22 (G35), 33 (F61-62), 44 (G38), 45 (G43), 47 (G47), 49 (G5), 53 (G13), 62, 70 (G4), 72 (G45), 90 (G7). Sites 45 Anthedon and 49 Pyrgos Magoula were actually excavated but the EH pottery was found on the surface and that is why they are included among the surveyed sites. At site 47 Magoula Balomenou, Lauffer had found EHII pottery (1971, 241), which Fossey neglects to mention (1988, 531).

25. Fossey sites: 6 (G12 in the *GAC*), 25 (G46), 60 (F57).

26. The Isthmus was part of a recent BSA survey and it is said that five sites were found on the Isthmus itself (Catling 1987, 19), but we do not know in which periods they were settled.

27. A30 and A33A in the *GAC*.

28. Sites A56, A59-60, A69, A73-74, A79-80, A82-84 and A87 in the *GAC*.

29. Sites A56, A59-60, A69, A79, A82-84 in the *GAC*.

30. This is site A75 in the *GAC*.

31. Sites A76 and A82A in the *GAC*.

sites of which 11 had EHII material, 7 had both EHIII and MH material (Fig.6).

Three sites in Elis produced EHII material, but nothing datable to EHIII, while one of them was resettled during MH.[32] Two other sites appear to have MH pottery but nothing earlier.[33] At least one other MH site is known in Elis.[34] In addition to these surveyed sites we have the excavated sites: 7 with EHII material, 3 with EHIII and 4 with MH material (Fig.6).

The *GAC* has mentioned two sites in Achaia which had EHII material, but lacked EHIII, of which one was resettled in the MH period.[35] Five sites seem to have been settled for the first time in the MH period.[36] To this list of surveyed Achaian sites we can add one MH site, Akrata, which was found by Papadopoulos (1978-79, site 68). Only two EH settlement sites have been excavated in Achaia, one with material spanning the EHII-EHIII and MH periods, the other with EHII and MH material (Fig.6).

In Attica, including the Megarid, 15 sites produced EHII material, but lacked EHIII.[37] Out of these 15, seven also had MH pottery, while one site, Skala Oropous, has produced both EHIII and MH material.[38] We will in this connection add two sites, which had EHII pottery on the surface, but where no such pottery was recorded as found in the excavations of the sites.[39] Three sites which are excavated but not properly published seem to have produced both EHII and MH material from the surface.[40] One site in the Megarid called Pagai has produced material spanning the EHII-III and MH periods (French 1972, figs.10, 12-14). Ten excavated settlement sites in Attica have produced EHII material; while EHIII material was found at seven and MH pottery at nine. Adding the excavated sites

32. Sites E42, E43, D246 in the *GAC* had EHII material, of which E42 also had MH.

33. Sites B83, B91 in the *GAC*.

34. Buchholz 1987, 433 fig.112, no.13 Salmone.

35. Sites B41 and B64 in the *GAC*.

36. Sites B40, B51, B53-55 in the *GAC*.

37. They are A93, A94A, F3, F7, F15, F19, F24, F27-29, F36-37, F39, F43A and F52 in the *GAC*.

38. The seven sites with MH material are A93, A94A, F19, F27-29 and F37, while Skala Oropous is site F57 in the *GAC*.

39. Sites F20, F22 in the *GAC*.

40. These three sites are Agriliki (F49 in the *GAC*), Spata (F42 in the *GAC*) and Ninoi (F53 in the *GAC*).

included in the Catalogue with the surveyed sites we will have a total of 31 EHII, 9 EHIII and 21 MH sites in Attica (Fig.7).

The *GAC* has mentioned one site in Phocis (including E and W Locris) with EHII material,[41] two with EHIII material,[42] and 11 with MH pottery.[43] Eight excavated sites included in the catalogue produced EHII pottery; while EHIII material was found at four and MH pottery at five sites (Fig.7).

Intensive surveys

Now turning our attention to the intensive surveys, we begin by mentioning seven such surveys which will add extremely valuable information when they are properly published. It must be kept in mind that very little or nothing has been said about site definitions, total site-numbers, subphases, settlement size or geographical setting in the preliminary reports. The seven surveys in question are: the Methana survey, the Sparta area survey, the Nemea Valley survey, the Oropos survey, the Skourta Plain survey, the Cambridge/Bradford Boeotia expedition and the Phocis-Doris expedition.

Forbes and Mee have, on behalf of the BSA, been supervising an intensive survey in the Methana peninsula during the years 1984-1987. They continuously supplied preliminary reports to the AR and the BCH. All in all 103 sites were found, of which about 36 seem to have contained EH material and of these perhaps as many as 19 sites had a significant amount of EH material. The EH sites were found in an area spanning from the coast up to 400 m a.s.l. Three MH sites were found of which only one had a large quantity of MH pottery (Catling 1985, 21-22; 1987, 19; 1988, 22). The large Vromolimni site, found at 400 m a.s.l., had EHI-II pottery scattered over an area of c. 1.4 hectares (Touchais 1986, 691).

The Nemea Valley Archaeological Project, in short NVAP, was sponsored by Bryn Mawr College and directed by Wright. One part of this project was the intensive survey conducted in the Nemea valley and its neighbouring areas during the years 1984-1986. From some preliminary notes it is gathered that more than 30 sites with EHII material were found, both inside and ouside the valley. Very little EHIII material was apparently found, but nothing was said about the exact numbers of EHIII

41. Site B95 in the *GAC*.

42. Sites G71 and G73 in the *GAC*.

43. Sites b96, G49, G53-54, G56, G71-75 and G77 in the *GAC*.

or MH sites (Roberts 1988, 252). In a recent preliminary report it is said that the substantial quantity of EHII material "stands in stark contrast to the rarity of EHIII sherds and the virtual absence of recognizable MH types" (Wright *et alii* 1990, 609). Further on in the text we can read that "neither Tsoungiza nor any other location...appears to have been inhabited before the late MH period" (Wright *et alii* 1990, 641).

A British-Dutch collaborate survey under the auspices of the BSA conducted an intensive survey in the Sparta area during the years 1983-1989. The survey found a total of almost 500 sites of which about 45 had EH material. The bulk of the EH pottery was of EHII date and no EHIII pottery has yet been identified by this survey (French 1990, 21). The final results remain to be published, but we know from another source that one large prehistoric settlement was found on the Menelaion hill (Bintliff and Snodgrass 1988, 60).

One intensive survey is presently under way in the NE section of Attica, called the Oropos Survey Project, which is conducted by the University of Manitoba, Canada. A preliminary report from the first year in the field, 1989, was recently published by Kosmopoulos. In an area of about 3 km^2 four EH sites are found (sites 2, 4-5, 13). Site 2 is located on a hill slope about 800 m from the sea. The EH material is not dated from this site. Sites 4-5, where 4 is a satellite to 5, have material from late EHI-EHII, and EHII was also found at site 13. These three sites are located on hill slopes less than 200 m from the sea. Nothing datable to the MH period was found in the survey (Kosmopoulos 1988, 175-198; 1989, 163-173; 1990, 328). Incidentally nothing of EHIII date was found either, but this was not mentioned by Kosmopoulos. This is, to my knowledge, the first intensive survey in Attica proper.

The Skourta plain, located on the border between Attica and Boiotia, was surveyed in a first preliminary season in 1985 by a small team from Stanford University (Munn and Munn 1989, 73-127). This plain which is an alluvial basin, only 3 x 4 km in size, is located at about 500 m a.s.l. Three smaller areas were intensively surveyed in 1985 when four EH sites were found (Munn and Munn 1989, sites A8, A10-12). Site A10 had material spanning the whole EHII-III and MH periods, while two sites (A11, A8) exclusively had EHII material and no subphase is given for the EH material found at A12. A1 was settled for the first time in the MH period (Munn and Munn 1989, 77-89).

An intensive survey of western Boiotia was conducted during the years 1979-1982 by the Cambridge/Bradford Boiotia Expedition led by Bintliff and Snodgrass (1985, 123-161). In 1984 - 1986 the same expedition

continued its work by intensively surveying three larger sites: Askra, Haliartos and Thespiai (Bintliff and Snodgrass 1988, 59; Catling 1986, 41). All three sites, with continuous habitation from EHII-III to MH, have already been included in the figures given in connection with Fossey's work in Boiotia (see Fig.7). At least five, possibly as many as seven, definite EH sites were found by the survey and nine of MH date (Bintliff and Snodgrass 1985, 135-138, 157-160).

I will finally mention what is known of the Phocis-Doris Expedition carried out by Loyola University in Chicago under the direction of Kase. In 1977-1978 the project team apparently surveyed and made test excavations in the Phocis-Doris corridor, which connects the Malian and Corinthian Gulfs. A total of seven EH sites and six MH sites were recorded, but the subphases are not known except in the case of Lilaia (G68 in the *GAC*) which seems to have been inhabited in the EHII and the MH periods (Kase and Wilkie 1977, 110-113; Wallace and Wilkie 1978, 154-164).

To sum up, the preliminary information from Methana indicates a dramatic drop in the number of sites from 36 EH to 3 MH. It is possible that a similar drop occurred in the Nemea Valley, but in this instance the information is too unspecific to let us say anything for sure. The same is valid for the Sparta area survey. The Oropos survey has recorded a drop in site-numbers from four in EH to zero in MH, the Skourta Plain survey has preliminary identified 4 EH sites and 2 MH and in Phocis-Doris a total of 7 EH sites and 6 MH sites were recorded. The only survey which has presented the opposite pattern is the one in Boiotia, where 5 (or 7) EH sites were found and 9 MH sites.[44]

44. Let me mention a few surveys of which practically nothing is known except that they have been carried out. A Dutch survey team conducted during the years 1976-1978 a survey (intensive?) in the plain of Astros, 30 km S of Argos. A very short statement, where it is said that 11 sites of all periods were recorded, can be found in Keller and Rupp (1983, 265-266). The ancient Megalopolis territory in Arcadia has been intensively surveyed during the years 1981-1983 under the auspices of the BSA. The surveyors have said in a preliminary report that very little prehistoric material was collected (Catling 1984, 27). In 1979 the Ohio Boiotia Expedition began its work in the Thisbe basin in SW Boiotia by intensively surveying the ancient city of Thisbe. During 1981 certain areas of the Thisbe plain and the Kouveli island were surveyed, but nothing is said about the results of this work (Gregory 1983, 245-247).

Three intensive surface surveys

After mentioning all these potentially important, but as yet unpublished surveys, I will now discuss in some detail three intensive surveys which recently have been carried out in Argolis[45] and on Euboia. The Stanford University Archaeological and Environmental Survey was conducted during the years 1979-1982 in the Hermionid region in southern Argolid. A preliminary survey in the same area in 1972 by the University of Pennsylvania and Indiana University was rechecked and incorporated in the Stanford University survey. Overall about 20% of the study area, or 44 km^2 out of 225 km^2, was intensively surveyed and produced a total of 328 sites (Runnels and van Andel 1987, 303-305).

The study of the EHII material, carried out by Pullen, and of the EHIII-MH material by Nordquist, has been finalized and the manuscript is in press (Runnels, Pullen and Langdon).[46] All in all 26 sites were found in the Hermionid, which had material securely dated to the EHII period.[47] Four out of these 26 had EHIII material[48] and 10 sites had MH pottery.[49]

A set of data comparable to that from the southern Argolid has been collected during 1988-1990 in the Berbati-Limnes area, which forms a hinterland to the Argive plain, c. 1.5 km E of Mycenae.[50] The survey area, which covered three subregions, the two inland valleys Berbati and Miyio

45. The results from an intensive surface survey, where only one site was walked, namely Makrovouni, which is a hill located 1 km NW of Argos, were recently published by Dousougli (1987). As much as 90% of the pottery collected was EH in date and found in an area of about 2.8 ha. (1987, 171). Dousougli concluded that a large settlement existed at Makrovouni in the early part of the EHII period, continuing into the beginning of a developed EHII phase as defined at Tiryns. Dousougli did not consider the dozen sherds of EHIII date found at the site to be enough to prove continuous habitation throughout the EHII-III period (1987, 199 fig.25:136-139, 214 n.142, 218). Wiencke later remarked that Makrovouni was either abandoned or seriously depopulated after an early EHII phase, i.e. after a period corresponding to Lerna III:B (1989, 499). However, I do not think that Dousougli is right when she disapproves of the EHIII sherds as signs of habitation.

46. I am very grateful to Drs. Nordquist and Pullen for letting me study their manuscripts (parts of which have been available to this author) prior to publication. Needless to say, none of those authors are responsible for any errors introduced here.

47. Sites with only one definite EHII or MH sherd are not included in the following figures. EHII material has been recovered at sites: A6, A9, A33, B7, B9, B24, B39, B41, B43, B81, B100, C11, C12, C15, E4, E5, E13, E16, F4, F5*, F7, F16, F23, F58, G1 and G9.

48. Sites A6, E9, E13 and F5*.

49. Sites A6, B5, B43, E5, E9, E13, E74, E76, F4, F5*.

50. The EH material from the survey is under study by the present writer.

and the hill slopes of the Vigliza mountain, produced nine EHII sites.[51] EHIII and MH material was not found in the survey at all, but has previously been recovered in the excavations of the Mastos in the Berbati valley (No.A:6).

The only intensive survey which to date has been undertaken in Euboia was part of doctoral research done by Keller, who worked during 1979-1981 around the Bay of Karystos in southern Euboia. In this primarily one-man survey, Keller found five EH sites and one large MH site. Two sites had EHII material and one of those continued into the EHIII period. Another site was possibly settled exclusively during the EHIII period (Keller 1985, 170-176 site 82). The remaining EH sites either were not dated or belonged to the EHI period (Keller 1985, 172-173 sites 2 and 116). Keller mentioned in a note that another survey, made in 1984 on the SE coast of Euboia, had found two EH sites (Keller 1985, 173 n.5:6). No further details were given about these two sites.

The temporal distribution of sites found in the three intensive surveys in Southern Argolid, Berbati-Limnes (including the excavated Mastos No.A:6) and Karystos Bay area was: 38 of EHII date, 7 of EHIII date and 12 of MH date (Fig.8). I find it worthwhile to make a methodological remark in connection with the intensive survey data compiled in Fig.8.[52] If we consider the approximate average duration for each period (EHII=ca.525, EHIII=ca.160, MH=ca.460 years),[53] we see that a new EHII site is settled every 13.8 years, a new EHIII site every 22.8 years and a new MH site every 38.3 years, when calculating with the figures in Fig.8. This means a steady decrease in the number of settlements recorded per century from EHII to the end of MH. Thus, these figures refute the interpretation usually made, that a dramatic drop in the amount of sites occurred between EHII and EHIII with a recovery during the MH period.

Settlement patterns

Presently I will try to draw as accurate a picture as possible of the changing settlement pattern within our study area during the EHII-III-MH period regarding the geographical distribution, whether nucleated or

51. These are FS35, FS405, FS414, FS308, FS43, FS44, FS39, FS13 and FS12.

52. Fossey (1988, 405-406) was on the right track, but was in my opinion not exact enough when considering this aspect.

53. I have used time estimates made by Rutter for EHII (1988, 73) and EHIII (1988, 88 n.15) and by Dickinson for MH (1977, 18 fig.1).

dispersed patterns existed, and whether hierarchical orders between sites can be identified. However, let us first return for a moment to the results of some of the pre-1970 surveys (where the excavated sites also are considered) in order to see how they described the settlement patterns during this period in their respective region.

Helen Waterhouse and Richard Hope Simpson's work in Laconia gave the picture of a widely diffused EH settlement pattern with most sites near the coastline on low hills. Then during the MH period the sites were of the acropolis type near fertile plains. The main EH centres were inhabited also during MH, whereas the smaller ones were deserted, giving as a result that fewer MH sites were found than EH. It is also said that the lack of EHIII surface finds was only a chance result (1961, 168-170), but the authors did not digress further on this subject.

Let us look at Howell's work in Arcadia. He said that most EH sites (i.e. EHII) were found on low hills or hill slopes and that loosely scattered settlements were preferred. Then during the MH period, acropolis sites were chosen supposedly because they were easier to defend (Howell 1970, 111, 113). Pretty much the same picture was given by *UMME* for Messenia (1972). Low natural knolls or artificial mounds were popular settings for EH sites (i.e. EHII) and many of them were found on the coast; they were small and no hierarchical order was found between them. The picture of the MH period is quite different. Now most sites were of acropolis type and only a few of them were on the coast. *UMME* suggested that the fact that so many MH sites had been found meant that a rapid population increase had taken place. It was also assumed that the settlements were much larger in the MH period than in the EH period (*UMME*, 131-134, 136). In Boiotia, Fossey saw only minor changes in the settlement pattern between the EH and the MH period, and the population level was seen as more or less constant throughout the BA (1988, 478).

Turning our attention to Euboia, one of several surveys of that island gave a picture of a thriving EH society where all parts of the island were penetrated by the EHII period (Sackett *et alii* 1966, 87-89). Renfrew used the survey data collected by Sackett *et alii* as evidence of settlement pattern B, according to which the number of sites decreased markedly during the MH period when the majority of them were of acropolis type. He saw piracy as the chief factor behind this change (1972a, 260, 262-264; 1972b, 388-391). However Renfrew has grouped both the low hill sites and hill slope sites with his acropolis type of sites. If we do not do this, we have 7 low mound sites, 4 low hill sites and 5 hill slope sites, versus 6 sites

of acropolis type during the MH period, which means that the picture becomes less dramatic.

Furthermore, Renfrew used Sackett *et alii*'s rough statistical numbers of 42 definite EH versus 28 MH sites as evidence that a dramatic decrease of sites occurred between EH and MH. If we instead use survey data which are more up to date, and where the subphasings of the EH sites are known (including the excavated sites), we have 40 EHII, 10 EHIII and 39 MH sites. Thus, we do not see a marked decrease of sites between EH and MH; on the contrary they increase (however, there is undoubtedly a decrease between the number of EHII and EHIII sites). Overall, Renfrew's interpretation of the Euboian data cannot be supported, especially in the light of a more detailed dating of the sites. Moreover, of the 10 sites occupied during the EHIII period, eight were located on the coast, which seems to refute any theory according to which more insecure times prevailed towards the end of the EH period causing the people to seek refuge up in the mountains away from the coast.

A highly contentious issue has been whether the different pictures given above, which are constructed from the results of extensive surveys (including the excavated sites in each region), are reliable or not. Bintliff, for instance, accused *UMME* of not being objective as they mainly looked for the acropolis type of sites at the expense of almost everything on lower ground, thus not being able to document either a "dispersed" or a "nucleated"[54] settlement pattern (1977, 133-134). This criticism was rejected by Hope Simpson (1981, 1) and has been questioned, in part, by Dickinson (1982, 128-133). Other critics think that the smaller sites, which are found in the intensive surveys, lack any real historical significance (Bintliff and Snodgrass 1985, 128). But I do not agree for the following reason.

Cherry has, to my mind, convincingly shown that *UMME*, together with the other pre-1970 surveys, most definitely were selective in their data-collecting. Cherry mentioned that the average site density of pre-1970 surveys was approx. 0.085 sites per km^2, while more recent surveys have an average site density of 5.5 sites per km^2, which means an increase by 60-70 times (Cherry 1983, 391-393, fig.1). To these figures we can now add the figures from the southern Argolid, the Megalopolis survey in Arcadia, the Laconian survey in Sparta and finally the Cambridge/

54. Both these terms have been described as at best rather vague by Runnels and van Andel (1987, 303). However, by the term "nucleation" I mean the development of certain central and important sites partly at the expense of others which were abandoned or decreased in size. This is the definition used throughout the present study.

Bradford Boeotia survey. These last four intensive surveys average 5.6 sites per km^2. All these figures speak for themselves and amply show how incomplete the distribution maps of extensive surveys have been and continue to be. There can no longer be any doubt about the superiority of intensive surveys when it comes to finding also the smaller settlements. This, to my mind (following Cherry), makes a discussion of changing settlement patterns at a *regional level* during the EHII-III, MH periods meaningful.[55] Let us therefore now return to the most accurate data available to us, which, I am sorry to say, is not much.

The southern Argolid area

The EHII period in the southern Argolid has been characterized by Pullen as a time of consolidation of the settlements (1985, 354). A total of eight sites,[56] including the cluster in the Fournoi valley, seem to have grown in size during EHII. It is not clear if any others among these, besides the Fournoi, grew at the expense of smaller sites nearby, i.e. whether they can be used as other examples of a nucleation during EHII or not.[57] What we do know is that at least three sites which dominated their respective area during the EHII period, i.e. A33 in Porto Cheli Bay, C11 in the Koilada valley and B24 in its own subregion, were abandoned during the subsequent EHIII and MH periods. Before leaving the EHII period behind, we should however also look at possible evidence of a hierarchical order between sites during this period.[58] A two-tier hierarchy was suggested for the Hermionid by Pullen, using the presence of rooftiles and impressed hearth-rims as criteria for the second level of sites. These were found at A6, A33, B24 and F5-32 (Pullen 1985, 335; Pullen, in press). Van Andel and Runnels have, on the other hand, suggested that three levels were distinguishable in this material, meaning that Pullen's second-level sites generally should be regarded as agricultural centers/ villages, whereas the Fournoi cluster was seen as a "large town" with a

55. For a methodological discussion about different survey techniques see Hope Simpson (1983, 45-47) contra Cherry (1983, 375-416) and again Hope Simpson (1984, 115-117) and Cherry (1984a, 117-120). It is of course impossible to say how many sherds should be found at one place in order to interpret this as a site with a permanent habitation, the limits have to be arbitrarily drawn. I have throughout the following discussion drawn the line at more than one diagnostic sherd, except for EHIII as it is more difficult to identify, painfully aware of the difficulties involved (cf. Hope Simpson (1984, 116) and Cherry (1984a, 119-120) on this methodological dilemma).

56. Sites A6, C11, B24, B39, B41, E4, E5 and F6-32 in the Fournoi.

significant obsidian industry, thereby belonging to the third or top level of a three-tier hierarchy (van Andel and Runnels 1987, 90-91; Runnels and van Andel 1987, 313-314).

We have already seen that A33 and B24 were abandoned after EHII, which means that only A6 on Kranidi Bay and the Fournoi, of the second-level sites, survived as settlements into the MH period. Furthermore, these two sites, together with a third, the Hermioni mound (E13), were the only sites in the entire Hermionid which might have been inhabited continuously throughout the EHII-III and MH periods. The central cluster in the Fournoi valley lies about 4 km from the sea, which made Pullen suggest that two other sites, F4 and F9, situated at the mouth of the valley, functioned as "ports" for the central area (Pullen 1985, 356). It is noteworthy that neither of those two sites have any EHIII material. Thus, we can conclude that the importance of the Fournoi valley dwindled during EHIII, as that site became somewhat isolated, while at the same time two coastal sites on the east side of the Hermionid probably expanded. Those two coastal sites, A6 on Kranidi Bay and E13 the Hermioni mound on Kapari Bay, together commanded the sea communications from the Argive plain to the Saronic Gulf and eastwards.

57. The settlement pattern during the EHII period in the southern Argolid was described by Runnels and van Andel as dispersed, while it became nucleated during the EHIII-MH period. This pattern was seen as reflecting periods of economic growth (dispersed) and decline (nucleated) which in turn depended on access or lack of access to external markets. Thus, economic drive was perceived as the dynamic cause behind a changing settlement pattern, where the nucleation during EHIII-MH was attributed to political disturbances (1987, 303, 311-315, 325-330). But this theory, where all development was traced to a single cause, the presence of external markets, was recently described as rather naive and unacceptable (Gallant 1991, 185-186). Besides, contrary to Runnels and van Andel's theory, Wiencke suggested that a change towards economic growth was seen in the Argolid before the second half of the EHII period, but it was not attributed to the presence of external markets (even the word "market" was rejected by her), and above all it was reflected in a period of nucleation, not dispersion (1989, 498-499, 501 n.41). Runnels and van Andel interpreted the subsequent decline during the EHIII period as due to the disruption of external markets (1987, 303, 326-327, 330). However, the postulated breakdown in external contacts (a theory emanating from Caskey 1960, 297) has been shown to be a misapprehension. After a more careful study of the pottery material from Lerna numerous imports of EHIII date were identified (Rutter 1988, 86). Overall, the call for a more sophisticated approach to the understanding of settlement pattern changes made by Cherry, Davis and Mantzourani (1990), is definitely justified.

58. Kilian (1984, 63) has suggested that a four-tier hierarchy developed in the Argolid during the EHII period. His four categories were: big (e.g. Lerna), middle (e.g. Asine), small (e.g. Kofini) and isolated farmsteads (Ayios Georgios near Tiryns).

The Fournoi valley quickly overcame the shifting luck, evidenced by the largest amount of MH sherds collected in the survey. At least six other sites of varying size have evidence of being resettled in MH after a hiatus during the EHIII period (E5, E74, E76, B5, B43, F4) and one site (E9) was probably a newly established settlement inhabited during the EHIII-MH periods.

In summing up the changing settlement pattern during the EHII-III and MH periods in the southern Argolid, we can say that a "nucleation" has been shown to begin already in the earlier part of the EHII period when the population agglomerated to the Fournoi cluster. It is not clear how we should interpret the other three sites: A6 the Flamboura, A33 on Porto Cheli Bay and B24 in the Koilada valley, with their terracotta tiles, impressed hearth-rims, imported pottery etc., but they do not seem to be of the same magnitude of complexity as the Fournoi cluster. Still they can be used to support Wiencke's theory of an "increasingly rapid pace of change...toward a high level of social and economic complexity" at the later part of EHII, corresponding in date to Lerna III:C-D (Wiencke 1989, 495-496). This quickening of pace was followed in the southern Argolid by a period of stagnation. Very few sites seem to have been inhabited during the EHIII period, and for some odd reason Fournoi also became isolated, while two port sites Flamboura (A6) and Hermioni (E13) grew in importance during this time (the indication of this is slight as only 12 EHIII sherds were found at A6 and 29 EHIII sherds at E13, versus 4 EHIII sherds at Fournoi).

The Berbati-Limnes area

The settlement pattern in the Berbati-Limnes region during the EHII-EHIII and MH periods is compatible with the one documented in the southern Argolid.[59] We have in this region found nine sites with material from the EHII period[60] and none with material from EHIII or MH. As in the southern Argolid, a process of nucleation seems to have occurred during the earlier part of EHII, both in the mountainous Vigliza region

59. The data on which this discussion is based will be published by the present author in Wells, B. and Runnels, C. eds., forthcoming.

60. Only a handful of diagnostic sherds were collected at four of those nine sites. Both FS 35 and FS 308 can nevertheless be considered as permanent occupation sites, as much undiagnostic material also was found, but in the case of FS 43 and FS 13 we cannot regard them as anything but "minor activity loci" as they lack any other EH material.

and in the Berbati valley. The evidence of this, scanty as it might be, is that sites with a fairly large amount of EHI material, such as FS 518 and FS 408 in the Berbati valley and FSS 40-42 on the Vigliza hill, were abandoned after the EHI period, while FS 405 and FS 414 in the Berbati valley possibly grew in importance during the EHII period and FS 12 in the Miyio valley, together with FS 39 and FS 44, seem to have absorbed most of the activities in the Limnes area during the EHII period.

If we take impressed hearths as characteristic for sites with a higher order of complexity, we have been able to document two such sites in the survey, FS 414 in the Berbati valley and FS 12 in the Miyio valley. The excavator of the EH settlement on the Mastos described the EHII remains at the site as reflecting a "developed yeoman culture, which had...advanced a considerable way towards a genuine city-culture" (Säflund 1965, 127). Säflund used paved streets, terracing work, substantial buildings, impressed hearths and possibly craft specialisation (potters) as evidence of this. However, it is impossible to answer the question whether FS 414 and FS 12 should be considered as of equal complexity as the Mastos or not. What we do know is that the Mastos was the only site in the area which was inhabited also after the EHII period (see No.A:6).

To sum up, at least two sites in the Berbati-Limnes area, FS 414 and FS 12 can be used as parallels to A6, A33 and B24 in the southern Argolid, thereby possibly supporting Wiencke's theory of a change toward economic complexity at the end of EHII (1989, 495-496). It might also be correct to interpret the Mastos as a "primate center",[61] showing a total nucleation during the stagnant EHIII and MH periods. It is noteworthy that the EHIII settlement on the Mastos suffered a complete destruction at the end of EHIII:3 (when correlated to Lerna's stratigraphy).

The Karystos Bay area

Keller's work around Karystos Bay in southern Euboia resulted in five EH sites (of which two or three were previously known) and one large MH site being documented. Site 26, 0.28 ha. in size and placed on a promontory, was settled during the EHI-II period, while site 54, 1 ha. in

61. This term was used to describe Phylakopi on Melos from around 2300 B.C. and Ayia Irini on Keos from ECII onwards, meaning that the bulk of the population was concentrated at one site (Wagstaff and Cherry 1982, 251-253; Cherry, Davis, Mantzourani 1990, 9.9, 9.12).

size and located on a low hill in the Karystos plain, was settled during EHII-III. Site 82, also inland, was possibly inhabited during the EHIII period. The MH site, no. 80, was 2 ha. in size and situated on a prominent ridge about 2 km from the sea. The size of this MH site reflects a nucleation and not a population decrease during this period according to Keller (1985, 176).

Interpretation problems

The last statement made by Keller leads us automatically to some general questions regarding the interpretation of surface survey data. Cherry has highlighted the following questions:

> 1) How "true" is the apparent reduction in site numbers between the EBA and the MBA?
>
> 2) Does it reflect a real drop in population numbers or a trend towards nucleated settlement patterns[62], or both?
>
> 3) Alternatively is it attributable to a combination of factors such as the longer duration of the EBA, or
>
> 4) to the difficulty of defining MBA sites on the basis of surface materials (Cherry 1982, 14)?

Information on site size[63] and well-defined and datable pottery should make it possible to answer the first couple of questions regarding nucleation and/or population reduction. In the southern Argolid we saw that five sites survived into the EHIII period, but that they left such minute amounts of sherds that a real drop in population number should be taken for certain.[64]

In the Berbati-Limnes area no sites survived the end of the EHII period except the Mastos (which was not included in the survey area). The

62. Bintliff suggested that a preference for nucleated as opposed to dispersed settlement pattern accounted for the reduced numbers of MH sites (1977, 131-135).

63. It has been suggested that the site size is correlated with the sherd amount if the EH material constitutes more than 50% of the total amount of sherds from a site (Pullen 1985, 347).

64. Runnels and van Andel calculated with a reduction of the population in the southern Argolid from ca. 1900 during EHII to 500 or less during the EHIII-MH period (1987, 325 n.6).

Mastos probably belongs to the category of sites exceeding 1 ha. in size, and the amount of published EHIII and MH material from the site indicates that it continued to be the "primate center" in the region. It is impossible to say to what degree the Mastos absorbed the EHII population from outlying farmsteads or more distant villages, such as FS 12 in the Miyio valley or FS 39 on the Vigliza hill, but I think that it is unlikely that the site grew so much that it could shelter the same amount of people which had populated the entire region during the previous EHII period. On the other hand, for the Karystos area on Euboia it is proposed that the MH site was so large that it reflected a nucleation rather than a drop in population (Keller 1985, 176).

Concerning Cherry's third question we have tried to take the time factor into consideration when doing the calculations accompanying Fig.8. However, it remains to show the usefulness of such arithmetic. Still it is a variable that, when considered, seems to weaken any suggestions to the effect that a stabilization had occurred during the MH period.

The fourth question mentioned above is in our case applicable to the EHIII pottery. The EHIII period has been considered as a "low-visibility phase" by Rutter (1983d, 138-139), meaning that the pottery from this period is difficult to recognize or has been misidentified. We must be aware of this problem, but it is going too far, I think, to accept Fossey's suggestion that all sites where Gray Minyan ware has been found should be considered as settled also during the EHIII period (Fossey 1988, 23, 414).[65]

A worrying fact regarding the "low-visibility" EHIII pottery is that out of a total of 15 excavated sites in the Argolid, for instance, EHIII material has been found at 11 (besides, the remaining four sites are neither well dug nor well published). The same picture is given by the excavation data from Corinthia, Attica, Euboia, Boiotia and Phocis (see Figs.6-7). Does this indicate that whenever a site is actually excavated, EHIII material pops up, and that it was undiscovered until then because of the low site density[66] during the EHIII period? Or is it the result of the fact that most sites which have been excavated in these regions are "primate centers",

65. This suggestion stems from the realization that an EHIII predecessor of Gray Minyan ware exists (see Chap.5.2) and that when a "Gray Minyan" sherd is found it is very difficult to decide whether it should be dated to the EHIII or the MH period.

66. It was suggested by Kirkby and Kirkby (1976, 248-252) that site accounts of periods with lower settlement densities are more prone to contain errors than accounts of periods with higher settlement densities.

which survived the unsettled period after EHII? I hope the last statement is true; otherwise most survey work would be fairly pointless.

Turning back to the beginning of this section which deals with settlement patterns, can we still support the generalizations referred to earlier concerning the changing settlement patterns in the study area toward the end of the EH period? It is not yet possible to discuss the statements given about Laconia, Arcadia, Messenia or Boiotia, because we lack published intensive survey data from these regions to compare with.

Our picture of the settlement pattern in Argolis was for a long time based on material from *excavated sites*, as no systematic survey had been undertaken until the southern Argolid project was carried out in the early 1980s. As an example of the pre-1980 picture let me quote Dickinson:

> The disaster which ended EHII caused the abandonment of some sites, but the settlement-pattern was not radically altered: many sites have produced evidence of EHIII occupation, and by the middle of MH almost all the old sites had been reoccupied and several new ones had been founded (1977, 87).

This picture should be adjusted in the following way, drawing on the information from the southern Argolid and the Berbati-Limnes surveys. Sometime at the beginning of the EHII period, several sites grew at the expense of others which were abandoned or diminished in size. A more dramatic change happened between the EHII and EHIII periods, and this time it reflected more than a nucleation of certain sites. The settlement-pattern was radically altered after the EHII period, and I believe that a drop in population number from EHII to MH (probably including MH) can be taken for certain in the southern Argolid and probably also in the Berbati-Limnes area.[67]

The data collected by Keller in southern Euboia do not indicate a similarly dramatic development, but rather a steady pace without clear signs of any disturbances. We can therefore conclude that different regions *do indeed* show different settlement patterns, just as Dickinson has suggested (1982, 128, 131-132).[68]

67. In a preliminary paper about the Nemea valley survey in Corinthia it is said that no evidence was found pointing at "nucleation" being responsible for the reduced number of MH sites (Wright *et alii* 1990, 641).

68. This was also corroborated by the Nemea valley archaeological survey, albeit for the Neolithic-EHI period (Cherry *et alii* 1988, 174-175 n.50).

The suggestion made that the MH period meant insecure times when sites were chosen for defense purposes (e.g. *UMME*, 174; Renfrew 1972a, 257-258, 260, 262-263) is not really possible to assess, drawing on the few new survey data available. The Mastos in the Berbati valley is an acropolis site and the only MH site in that region. It was settled (for security reasons?) already in the EHII period. The geographical setting of the sole MH site in the Karystos area might suggest defense purposes, whereas 2 out of 3 large sites (A6 and E13), which were the only sites settled throughout the EHII-MH period in the southern Argolid, were coastal sites. The geographical setting remains unknown for the other MH sites in the southern Argolid,[69] except for two coastal sites (E5, F4) and one inland site (E74).[70]

69. Meaning B5, B43, E9 and E76.

70. Of the 15 excavated settlement sites in Argolis, datable to the EH subphases and included in the catalogue, 11 sites are inland and 4 coastal during EHII, 7 inland and 4 coastal during EHIII, and 11 inland and 4 coastal during MH. Thus there is no perceptible change between the EH and MH locations among these sites in the Argolid.

5. Possibly "new" features in the area towards the end of EH

In the first chapter of this study we saw how numerous different features have been used as evidence of one immigration theory or another towards the end of the EHII period or the beginning of the EHIII period. The so-called "new" features which will be dealt with in the following sections are, in turn: apsidal buildings, the "Lefkandi I" pottery assemblage, Pattern-painted wares, Fine Gray-burnished ware, Finely Incised and/or Impressed ware, terracotta anchors, shaft-hole hammer-axes of stone, tumuli and intramural burials.

5.1. Apsidal buildings

One of the most obvious changes which was documented at Lerna after the destruction of the EHII settlement was the appearance of the apsidal house form. This particular shape can be described as a hybrid or a compromise between the curvilinear and the rectangular house plan. The apsidal form is, however, not the only shape used during the EHIII period, other forms were built simultaneously. For instance at Lerna trapezoidal structures, at least one D-shaped house and a small rectangular megaron existed side by side with the apsidal houses during several stages of the EHIII period. But it is an undeniable fact that the percentage of apsidal houses at Lerna tended to increase towards the end of EHIII and during the MH period.

Several categories of apsidal house forms have been identified, where everything from five classes (Sakellariou 1980, 118), to two, i.e. the one-roomed/D-shaped house and the long house with the apsidal end closed off by a crosswall from the main rectangular room, are made (Hood 1986, 38).[1] The latter type is the one which constituted such a dramatic contrast to what went before at Lerna, but D-shaped houses were apparently also built at the site not long after the initial phase of EHIII. In this chapter I will consider both the one-roomed/D-shaped and the longer two/three-roomed apsidal houses as belonging to one and the same category.

1. Incidentally this last distinction was not made by Sakellariou who puts both these types into a general apsidal group (1980, 119-121).

At least two hypotheses prevail concerning the area of origin for the apsidal house form. First of all we have the "Palestinian school" according to which the ultimate origin was to be found in Palestine, from where these house plans then supposedly spread to reach the Greek mainland sometime during EHII (Treuil 1983, 313-316), or reached the Aegean area in general at the beginning of the Early Bronze Age (Aslanis 1990, 170). Then we have the more favoured theory which we might call the "Balkan or SE European school", which has numerous supporters, e.g. Howell (1973, 91-92), Warner (1979, 146-147), Sakellariou (1980, 126) and Hiller (1986, 87). Hood seems to maintain an intermediary position as he suggests that both the D-shaped and the standard long apsidal houses derived from Anatolia (Hood 1986, 62). It is however implied by Hood that Palestine was the ultimate place of origin, on one condition, that the apsidal house found at Byblos really was of Early Neolithic date (1986, 39).

The purpose of this section is to gather all the available information about the apsidal houses within our study area in order to look at their dates and their geographical distribution (Fig.9). Can an "invasionistic" hypothesis be maintained after this exposition, or is the pattern which emerges more likely the sign of a natural diffusion? Which is the most likely area of origin for the apsidal house form? We should keep in mind that a short stretch of a curved wall is often all that remains, which makes an identification of the shape difficult if not impossible. Moreover, a curved wall could indicate a circular building similar to those which have been found at Voidokoilia (Korres 1990, 4), Olympia/the Altis site (Kyrieleis 1990, 186) and Orchomenos.[2]

I will use Lerna as the logical starting point in the following exposé, then move counter-clockwise over the Peloponnese and finally add the east-central area of Greece to this survey. The first structure in Lerna IV:A was house A:1, an apsidal building with a wooden framework of wattle-and-daub technique (No.A:1). House A:2, which after a few years succeeded building A:1, was also apsidal, but from now on the houses had stone foundations topped by superstructures made of mudbrick. At least one D-shaped house, together with both large and small apsidal houses, a megaron and some trapezoidal buildings were built during the course of Lerna IV:2-3. In the following MH period most houses were of apsidal type.

2. The excavators at Tsoungiza (No.B:2) and Pylos (No.F:1) have also mentioned the possibility that circular buildings were found.

If we turn to the comparanda found at Tiryns (No.A:2), we first discover that two apsidal houses were exposed in 1984, in the "Oberburg", which were dated to an early EHII period. As one of these houses had been disturbed by the construction of the "Rundbau", tentatively correlated with Lerna III:D, the EHII date is quite unproblematic. It is possible that the "Kurvenmauern", which were described by Müller (1930, 87, 91), represent other apsidal houses contemporary with the early EHII houses mentioned above.

In the "Unterburg" one apsidal house, building 109, seems to belong to Tiryns phase 9 (synchronized with Lerna IV:1), which makes it the earliest such building documented in the "Unterburg". The following phases, 10-13 (Lerna IV:2-3), have been called the "apsidal horizon", due to the fact that no less than five apsidal houses belonging to this period were uncovered in the new excavations, in addition to R165 which was found already in 1913/1914.

A preliminary report from rescue excavations at Argos (No.A:4) in 1980-81 has suggested that some EH apsidal walls were found on the Parodos of the Odos Theatrou, but this material remains unpublished. A long-disputed question has been whether House R at Asine (No.A:11) should be considered as another example of an apsidal house or not. I believe, for reasons given in the catalogue, that this is indeed an apsidal building, but that the date cannot be pinpointed to a specific subphase of the EH period because of the disturbed stratigraphy. Therefore we must content ourselves with a *terminus post quem* date set at EHII for this particular building. On the other hand, an EHII date for the apsidal house represented by "wall 1" must be considered as quite certain.

Some pottery material has been published from the excavations made in 1939 at Kandia (No.A:13) and Dunbabin mentioned in passing that an EH apsidal house also was found at the site. As the bulk of the pottery found at this site is of EHIII date it is suggested here that the apsidal house also should be given such a date. In Corinthia part of a curved wall was found at Zygouries (No.B:1), whereupon Blegen "conjectured the idea" of an apsidal house, which is of late MH date. The earliest datable architecture found on the crown of the Tsoungiza Hill (No.B:2) is one curving wall abutted by a straight wall, both dated to an early EHII period. It was not possible, according to the excavator, to decide for sure that the curved wall belonged to an apsidal and not a circular building. It is said that a certain number of apsidal houses of EHIII date also were found at Tsoungiza, but no details have been published concerning these. Korakou (No.B:8) has left extremely scanty architectural remains among

which there might be part of an EH apse, subphase unknown. Almost one complete and part of another apsidal house of MH date were uncovered at Korakou.

Leaving Corinthia behind and turning our attention to Elis, we first find some apsidal houses at Olympia/the New Museum site (No.D:4). We have already commented on the mixed stratigraphy at this site, which prevents our giving a definite date for these houses. The four apsidal houses which were found at the New Museum site are here tentatively dated to a period corresponding to Lerna IV:1-2. The site Olympia/the Altis (No.D:5) is located about 400 meters south of the New Museum. Several apsidal houses were found here in the early 1900s. Three of those houses have now been dated to EHIII:1. Further excavations in 1988 have pinpointed the date of apsidal house 4 to EHIII:3, which makes it contemporary to apsidal house 5. Thus, there are two apsidal houses of EHIII:3 date at the site. These two were apparently not the last buildings of EHIII date as the excavator Kyrieleis has dated a rectangular building, which replaced the demolished house 5, to the end of EHIII.

A short stretch of a stone wall, not more than 2.5 m long, was slightly curved and could be part of an apsidal house of early MH date at Asea (No.E:1). At Pylos in Messenia (No.F:4) an area with disturbed and probably mixed stratigraphy was excavated by Lord Taylour. In the catalogue I have tentatively dated the two superimposed "apsidal" buildings to the EHII period, due to the large amount of what was probably EHII ware found associated with these buildings. Actually one of the structures, the older one, might have been circular and not apsidal, but so little remained of it that it is impossible to make a secure identification.

In Laconia we have one MH apsidal house at Ayios Stephanos (No.G:1), but far more interesting are the remains of an apsidal building at Kouphovouno (No.G:2). This house is securely dated to the EHII period and consists of two rooms covering an area of about 5.5 x 4.5 meters.

Moving from the Peloponnese to Attica, our first incidence of apsidal buildings is at Athens (No.H:3), at "Plato's Academy" and at Rouf. The apsidal house at "Plato's Academy" consisted of two main rooms and a small porch, all in all 8.5 x 4.5 meters in size. The pottery found in connection with this house is of both EHII and EHIII date; as the excavator has not published this house in more detail, a precise date cannot be given. Thus, a *terminus post quem* date of EHII is the closest we get for this apsidal house. The EHII material which Petritake found at Rouf in 1981 was divided into three subphases corresponding to the architectural building

phases as defined at the site. Phase 1 was represented architecturally by a D-shaped house, 1.8 x 1.3 meters in size and built with a stone foundation.

Another D-shaped house, this time without a stone foundation, was found by Theochares at Askitario (No.H:8). It is assumed to be of EH date, but as no accompanying finds were published we cannot decide if this is correct. Two apsidal houses have been mentioned at Manika (No.J:1) by Sampson of which one was published in more detail. Part of the apse and a short stretch of the straight wall were intact. The pottery associated with the building is of EHII date ("EHIIa" or "Manika 2" as defined by the excavator). The other apsidal house was apparently also datable to the EHII period according to Sampson. However, it is not known if he refers to the apsidal wall uncovered by Sapouna-Sakellarakis in 1984, or not. But as she found both EHII and EHIII pottery in the excavation and does not date the wall, I suggest that this house is given a *terminus post quem* date of EHII.

It was recently suggested by Sapouna-Sakellarakis that another possible apsidal wall of EH date (EHI-II?) was exposed at the coastal site Linovrochi, located not far southeast of Lefkandi (1986, 36-37 fig.17). Hardly any information is published about this excavation; but if this wall turns out to be the remains of an apsidal house, it might be the earliest ever found in the study area with a *terminus ante quem* date of EHII. Several apsidal house walls of MH date have apparently been exposed at Eretria (No.J:3). Before leaving the Euboian sites we should also mention the apsidal house at Mourteri (No.J:6). Sampson, who excavated the site, believed that this house had been quite large as the walls were 0.6 m wide. The associated pottery dated the house to EHII.

In Boiotia at least two apsidal houses of late EHII date were found at Thebes (No.i:6). Symeonoglou points out the possibility that one additional apsidal house existed, parallel and just to the N of the large apsidal building at site I:2, but the fragmentary state of this construction excludes a definite identification. Two apsidal houses were found at Eutresis (No.i:7), both of MH date. The excavator, Goldman, did not exclude the possibility that a third building, House S, also had an apsidal end, but it was too fragmentary to decide for sure. At Orchomenos (No.i:8) I have recorded two possible one-roomed apsidal houses (K44 and K72a) of EHIII date, and some evidence exists of two similar but earlier constructions (K31 and K32), which are of a late EHII date. It is only in area K that the material can be dated according to subphases within the EH period. Possibly as many as seven other apsidal buildings were partly exposed in

area N at Orchomenos, but these cannot be dated closer than to some time during the EHII-III periods.

After this survey of apsidal houses we should ask ourselves: does a coherent pattern emerge?

1) It has become quite obvious that we cannot maintain the idea that this architectural form was a "new" feature in the Peloponnese at the beginning of the EHIII period.

2) The earlier EHII occurrences of this house form are almost equally distributed between the Peloponnese and the east-central area of Greece.

3) We can on three occasions see a relationship between a destruction layer and the subsequent construction of apsidal buildings as a "new" feature, namely at Lerna in EHIII, at Asea and at Eutresis in MH.

Returning now to the question of possible areas of influence for this building form. Can we find any possible prototypes to the apsidal house form if we look to the N or the E of our study area, and what about the distinctive differences in building techniques, i.e. the wattle-and-daub versus the stone and mudbrick constructions? If a "prototype" exists for the latter technique, "House Q" at Rachmani in Thessaly can, in my opinion, be considered a likely candidate. This building was one-roomed with a shallow apsidal end (Wace and Thompson 1912, 37-38 fig.17, 39-40). The opinions vary concerning the date of this house and Treuil, for instance, was prudent enough to say that the building in question was undatable (1983, 315). Sinos referred to "House Q" as of late Neolithic date (1971, 21), while Renfrew the following year defined a Final Neolithic period into which he put this apsidal house (1972a, 69). Such a date was also implied, I believe, by Hood when he proposed that it preceded the Early Bronze Age (1986, 46).

Warner suggested that the apsidal "House Q" (and House P) at Rachmani "probably" should be of early EBA, or "slightly earlier", date and hence that they functioned as prototypes for the earliest Anatolian apsidal houses found at Troy I (1979, 145, 147). Sakellariou has proposed an EHI - early EHII date for both "House Q and P" (1980, 119). Weisshaar recently suggested a late EHI - early EHII date, but only for "House Q", drawing on the similarity of some finds, i.e. the acrolithic idols found both in "House Q" and in the middle stratum at Pefkakia. He admitted that no other direct parallels existed between the two sites (1989, 69, 72-73, pls. 65:1-2,4-5, 66:8, 145).

The correlation used by Weisshaar is, however, not unproblematic because the middle stratum at Pefkakia seems to include material from Final Neolithic to EHII, as it contains Crusted ware of Final Neolithic date (Renfrew 1972a, 69; Weisshaar 1989, 21-22 n.43, pl.137 "pastos"), Red Slipped and Burnished ware of EHI date (Weisshaar 1989, 107, pl.137) and imported Urfirnis pottery of EHII date (Weisshaar 1989, 25, 62, pl.137). The time span into which "House Q" can be placed is thus very long if we accept the correlation of the middle stratum at Pefkakia with stratum III at Rachmani, proposed by Weisshaar. However, if we look at the finds in the house itself I believe that the presence in "House Q" of Crusted ware decides the matter in favour of a Final Neolithic date for it and consequently an EHI date for the younger "House P".

Thus, a northern "prototype" can be suggested for the EH apsidal houses built of stones and mudbrick. Besides, the earliest apsidal buildings in Anatolia, datable to the Troy I period, which is seen as contemporary with EHII in southern Greece (Warner 1979, 138, 147; Mellink 1986, 145; Sherratt 1986, 445 table 13.2), have probably been influenced from the same, i.e. Thessalian, area as southern Greece. When it comes to the question of finding possible "prototypes" to the apsidal house form built in wattle-and-daub technique, of which we have a unique example at Lerna, I suggest that we turn our attention to Sitagroi in eastern Macedonia.

The apsidal "Burnt House" at Sitagroi has been dated to the EHII period by Renfrew and the overlying "Long House", likewise of apsidal plan, to the EHIII period (1986a, 152-153, 1986b, 483). The "Burnt House", which was 5.3 x 8 m in size, was built in a wattle-and-daub technique and had a similar apsidal-ended house of a slightly older date to the E of it (Renfrew 1986a, 190-191, 196 fig.8.10, pls.26-27). The same building technique was used for the younger "Long House", 5.2 x 15.5 m in size (1986a, 189, 195 fig.8.9, pl.23:1).

Apsidal houses in general have been shown to be of remarkable ancestry further to the N in the Balkans, going well into the earlier Neolithic periods (Howell 1973, 93; Sherratt 1986, 443 fig.13.3a), and thereby constitute natural points of origin for the Thessalian and Macedonian examples discussed above.

5.2. The ceramic assemblage

The "Lefkandi I" assemblage

The coiner of the term "Lefkandi I" used it to denote a chronological phase and a particular ceramic assemblage best represented at Lefkandi on Euboia (Rutter 1979, 6). That the discovery of this special group of pottery was to become of utmost importance was realized at once by French, who was the first to study the Lefkandi material (French in Popham and Sackett 1968, 8). He stated that "the recent excavations at Lefkandi promise a revolution in Greek prehistory" (French 1968, 61-62, 172).

As the first result of French's analysis of this pottery it was suggested that the pottery from Phase 1 at Lefkandi corresponded temporally to early EHIII in the Peloponnese and that this phase in Euboia, which was Anatolian in character, should be called Euboian EB 3 (French 1968, 62). Later on French proposed that "much more came across to Greece from Anatolia in EHIII than has been suspected and that ceramically the melting pot was not North West Anatolia but perhaps Euboea and Central Greece where both the shapes (e.g. the two-handled bowl in Ag.Marina ware) and the use of the wheel (in Euboea EB 3) can be found in the phase immediately preceding MH Gray Minyan" (French 1972, 23).

Despite the fact that the Lefkandi material remains largely unpublished, Rutter has ventured to analyze the "Lefkandi I" pottery assemblage and its relationship to the Lerna IV material, of which he had first-hand knowledge (Rutter 1979). First of all, Rutter suggested that the two ceramic assemblages which had been identified by Renfrew, one at Lefkandi on Euboea and one at Kastri on Syros, should be collapsed into one single pottery assemblage termed "Lefkandi I", which furthermore was seen as contemporary with a late stage of EHII in the Peloponnese. Five out of six type shapes of this assemblage (plates/shallow bowls, one-handled tankards, two-handled cups, depata and beaked jugs) were considered by Rutter to be of western Anatolian origin, while the sixth (the incised pyxides) probably had a Cycladic origin (1979, 1-8).

Rutter's analysis indicated that the "Lefkandi I" ceramic assemblage replaced the common small open shapes used for eating, drinking and pouring of the previous period, whereas the larger open shapes and storage vessels remained more or less the same. This partial replacement of vessel shapes, coupled with the abandonment of Kastri on Syros and the establishment of a settlement at Lefkandi, was seen by Rutter as possible evidence of some kind of population movement in some areas (e.g. at Ayia

Irini on Keos), at the transition EHII/"Lefkandi I" (1979, 8). However, he did not rule out the possibility that it was the introduction of the potter's wheel which resulted in a change within the repertoire of vessel shapes, rather than a population influx (1979, 8).

The main theory of Rutter implied that the Peloponnesian EHIII pottery (as found at Lerna IV) was the product of a fusion between an intrusive West Anatolian tradition ("Lefkandi I") and the native mainland Greek EHII tradition. This fusion supposedly happened in two main stages. Towards the end of the EHII period the two traditions were brought in contact at sites such as Ayia Irini on Keos, Manika on Euboia and Raphina in Attica. Then during the EHIII period the pottery which developed within central and southern Greece[3] supposedly became "Anatolianized", while "Lefkandi I" pottery became "Helladicized" (Rutter 1979, 10, 12-15).

The West Anatolian character and origin of most of the elements constituting the "Lefkandi I" assemblage has not seriously been called in question by anyone.[4] But two other aspects of this pottery assemblage have caused much controversy: the choice of term to be used for it, and how to correlate it in date with the Greek mainland. As Rutter himself noted, "the terminology applied to this assemblage is unfortunately at the moment in a state of extreme flux" (1988, 87 n.4). But I think that much of this controversy is of little real importance. It is, in my view, enough to know that various terms and dates have been used denoting one and the same assemblage, and I will at this point mention a few variants.

Euboean EB 3 - early EHIII (French in Popham and Sackett 1968, 8).

The Lefkandi group - early EHIII (Renfrew 1972a, 103, 105, 203).

The Kastri group - early EHIII (Renfrew 1972a, 533-534).

The "Lefkandi I" assemblage - late EHII (Rutter 1979, 6).

EH II B or EH 4 - (Sampson 1985, 152) later changed to EH 3 (Sampson 1986, 47 n.3).

Lefkandi I - EHIIIA (Warren and Hankey 1989, 41 table 4.3).

3. The theory that the EHIII pottery developed in central and southern Greece has been elaborated by Rutter in several other papers (1982, 1983a), which we will have reason to return to later in the text.

4. Except by Doumas; see later in the text.

What the many different opinions about the date of this pottery assemblage reflect is, I think, that a mixed group of pottery was found in the different strata referred to as Phase 1 at Lefkandi. For instance, some EHII sherds of well-known mainland type, glazed ware and sauceboats, were recorded as coming from the earliest strata (French in Popham and Sackett 1968, 8; Fraser 1970, 8; French 1972, fig.10). But, at the same time, French remarked that at Lefkandi the West Anatolian EB 3 pottery, found in the earliest strata, was associated with a small percentage of Peloponnesian EHIII sherds and not with EHII pottery (1968, 157). These contradictory statements amply show what I have said above, namely that the stratigraphy at Lefkandi must have been quite mixed up and disturbed by later intrusions. Nevertheless, Rutter used two arguments to support a late EHII date for the "Lefkandi I" assemblage, namely that mainland EHII pottery and "Lefkandi I" pottery were found on the same floor in House A at Raphina, and that "Lefkandi I" shapes have been found in EHII strata at Thebes, Eutresis, Orchomenos in Boiotia (Rutter 1979, 21 n.4) and at Kolonna on Aigina (Rutter 1983b, 108; 1983c, 70 n.7).

Overall, however, the most important aspect of the "Lefkandi I" assemblage is its largely West Anatolian origin and the wider implications of this fact. As already noted, French in 1968 suggested that Anatolia had influenced Greece in EHIII to a much larger degree than hitherto believed and that Euboia during the EHII period was "Helladic" in character, while it became "Anatolian" in EHIII. The abundance of Anatolian pottery on settlement sites was interpreted as something more than trade, but not necessarily an ethnic change. French spoke instead of "a difference in outlook" due to some new "influences" (1968, 172; 1972, 23). This is a sweeping and noncommittal term.

More speculative hypotheses have been proposed, for instance by Popham and Sackett, who saw, in what they called an "imaginative reconstruction", the first settlers, probably coming from the East Aegean, arriving around 2100 BC at Lefkandi, while other bands reached Orchomenos and may have been responsible for the destruction of EHII settlements nearby (1968, 34). In a paper published some years later the same authors suggested that the early settlers were one branch of a movement from the east, which brought a violent end to many EBA cities in the Aegean. Soon afterwards in EHIII these newcomers began to relate with the Peloponnese (Sackett and Popham 1972, 11, 13). Renfrew said, à propos this issue, that "small groups of immigrants may have travelled from NW Anatolia" to settle down at Lefkandi (1972a, 477), while Rutter developed a theory about an intrusive "Lefkandi I" ceramic assemblage which "migrated"

from West Anatolia to mainland Greece at then end of EHII. He did not know how to interpret this "migration" in human terms, but asked in short: how many, if any, potters actually moved? Did they move alone or together with other elements of the population? Or was it a migration of ideology alone? (1983a, 347 n.63).

Other theories have been launched concerning the "Lefkandi I" pottery, e.g. by Mellink who proposed that western, possibly southwestern, Anatolian exploratory enterprises in the Aegean resulted in new settlements here and there at the end of EHII, e.g. at Lefkandi. In Mellink's analysis of the origin of the constituents in the "Lefkandi I" group the role of Troy and NW Anatolia was downplayed, while sites in SW Anatolia, where numerous links were seen, e.g. one-handled tankards and wheelmade plates, were considered as possible centers of origin and diffusion of this ceramic innovation (1986, 144-151). Another theory, roughly along the same lines as Mellink's, has been presented by Barber. According to this theory a substantial number of intruders of Anatolian, especially Cilician, origin could be seen in the Cyclades at the end of ECII, e.g. at Lefkandi. Anatolian groups most likely also pushed their way into the Greek mainland, he said (1987, 28-29, 137-139).

Doumas, on the other hand, suggested that the north Aegean islands, especially Lemnos, consituted a separate insular civilization which was associated with the "Kastri group" of pottery (a term used synonymously with Rutter's "Lefkandi I"). This type of pottery was then spread southwards by the northern islanders, at the end of the EHII period, to Lefkandi and Kastri on Syros. Surprisingly, Doumas said that this special pottery assemblage had nothing to do with western Anatolia (1988, 23, 26). He is thus the only one, to my knowledge, to deny such a connection. Instead he proposed that the origin of this pottery assemblage was to be found in "the north Aegean insular civilisation" as it was defined by him (1988, 23, 26-27). His only ceramic arguments for such a connection were that loop-like handles and ovoid bodies were more common at Poliochni than at Troy, and that a jar from Lerna IV was more similar to jars found at Poliochni than at Troy (Doumas 1988, 27-28). These arguments carry little weight, in my view, compared to the large amount of western and southwestern Anatolian ceramic parallels presented by Mellink (1986, 144 pl.16, 145-149). Besides, Doumas' statement that "there is no evidence of any prehistoric population in [western Asia Minor] involved in maritime affairs, able to confront the pirates of the Cyclades", is a rather rash hypothesis which itself lacks any evidence. On the contrary, I believe that the occurrences of "Lefkandi I" vessel shapes at Iasos, on the west coast of

Anatolia, and then on Samos, Naxos, Delos, Syros and Keos, imply a quite natural seaway for the diffusion of this "new" pottery assemblage. The theory about "a complex web of short-haul sea routes" in the Early Bronze Age (Cherry 1984b, 30) very well supports this view.

The main result so far, of the discussion concerning the "Lefkandi I" assemblage, is that West Anatolia took part, through the infiltration of either "ideas", "influences" or actual "intrusions of people", in the development of the mainland towards the end of the EHII period. Is it possible to decide the degree of this infiltration? What is the connection, if any, of this "new" feature with the "destruction layers" documented in the study area? I will proceed by recording the amount of "Lefkandi I" pottery and the places where this occurs in order to find some tentative answers to these questions (Fig.10).

At Lerna (No.A:1) it is said that the new EHIII shapes and the "Lefkandi I" type shapes are "not extremely close and certainly never involve the absolute identity of a shape"; still, "there are recurring similarities which are too numerous to be coincidental" (Rutter 1979, 12). However, one vessel, the Lerna cup, must be considered to be of "Lefkandi I" type and even though the date is a bit ambiguous, I believe that it should be dated to the EHIII period. As we have seen above, Rutter developed a theory according to which the "Lefkandi I" assemblage constituted the ancestry for some of the common EHIII pottery; consequently whatever influences the "Lefkandi I" assemblage might have had on the EHIII pottery, at Lerna it appeared after the "destruction layer".

A cup which resembles the "Lefkandi I" depas shape but which has a foot added on to it, and which has been described as a hybrid of a tankard and an ouzo cup (Rutter 1979, 12), was recorded by Müller at Tiryns (No.A:2, the "Oberburg", old excavations). It was executed in Dark-on-Light patterned ware, but the exact find context is not known. However, a parallel to this vessel was found in an EHIII layer at Lerna (Rutter 1979, fig.7), which therefore suggests a similar date for the Tiryns find.

Very shallow plates, another feature of the "Lefkandi I" assemblage, are said to have been found at Akovitika in Messenia (No.F:7). The pottery from this site is still unpublished; therefore we should be careful not to press this information too much. Akovitika was possibly abandoned at a late EHII stage subsequent to the introduction of these "Lefkandi I" features.

At Ayios Kosmas in Attica (No.H:4) several "Lefkandi I" features have been documented, e.g. a couple of one-handled tankards found in the cemetery. These EH elements preceded the destruction of the site. Numerous "Lefkandi I" features have been found at Kolonna on Aigina (No.H:5). They are usually of late EHII date and thereby precede the destruction layer at the site, which is dated to some time during the third subphase of the EHIII period. However a "depas" look-alike, combining the tankard and ouzo cup shapes and paralleled at Tiryns and Lerna, was found in City VI, i.e. in a stratum postdating the destruction layer at Kolonna.

A deposit of "Lefkandi I" pottery was found in mine 3 at Thorikos on the east coast of Attica (No.H:6). This deposit contained plates, depas and one-handled tankards. However, the site lacks evidence of any destruction layers. Theochares found a one-handled tankard among other late EHII pottery in house E at Askitario (No.H:8). The site was probably abandoned after a late EHII period. At Raphina (No.H:9), two kilometers north of Askitario, a large deposit of more than 50 restorable vessels was found in House A, a deposit which included typical "Lefkandi I" features together with common EHII pottery of mainland type. There is no conclusive evidence that the site was destroyed as suggested by the excavator; instead it has been said that the settlement possibly was deserted, leaving a hiatus in the occupational history after an early phase of EHIII. The inland site of Koropi (No.H:13) consists of some subterranean chambers, which were excavated in 1985. The description of the pottery found in these chambers (most of it is not illustrated) indicates in my opinion that "Lefkandi I" elements were represented among this material.

Three or four sites on Euboia have in excavations produced "Lefkandi I" pottery: Manika (No.J:1), Lefkandi (No.J:2), Eretria (No.J:3) and possibly also Amarynthos (No.J:4). The settlement at Manika is said to have "contracted" during the EHIII period, but the evidence of this is not altogether convincing; therefore I do not think that we can correlate the introduction of the "Lefkandi I" assemblage with a contraction of the site. At Lefkandi the pottery assemblage which is part of the so-called "Lefkandi I" assemblage was totally different from any previous EHII pottery found in the study area. Finally "Lefkandi I" features have been recorded at Eretria and possibly at Amarynthos. Both these sites lack destruction layers; instead they belong to the sites which might have been inhabited continuously throughout the EHII-EHIII-MH period.

Three sites in Boiotia have produced "Lefkandi I" features of EHII date. They are Thebes (No.i:6), where several one-handled tankards and plates have been found; Eutresis (No.i:7), with a couple of one-handled tankards and two-handled cups; and finally Orchomenos (No.i:8) where several one-handled tankards, plates and even one imported Trojan depas amphikypellon were found. It has become quite clear that large parts of

Thebes were destroyed at the end of EHII:D, i.e. after the introduction of the "Lefkandi I" assemblage, and then again possibly at the end of EHIII. At Eutresis and Orchomenos the "Lefkandi I" type of pottery likewise preceded the destruction layers, which at both sites, in the case of Orchomenos rather tentatively, have been dated to the end of the EHIII period.

A look at Fig.10 shows at once that there is no unequivocal instance in which "Lefkandi I" features were preceded by a destruction layer, except at Lerna and Tiryns. The more frequent finds of "Lefkandi I" elements in the east-central area (including Kolonna on Aigina) clearly show the region in which this "new" pottery landed.

Pattern-painted wares

In 1960 it became apparent that stratigraphical evidence from Lerna supported Müller's conclusions from 1938 that two consecutive groups of Pattern-painted wares existed toward the end of the EH period (Caskey 1960, 292). In a detailed study of these wares, Donovan divided them into "Early patterned ware" and "Late patterned ware" of EHII and EHIII date respectively, each group in turn divided into Dark-on-Light and Light-on-Dark ware (1961, 3-4, 20, 114-115, 126). It is only the Late patterned ware which is of immediate concern in this study, as this was the variety which was seen as a "new" feature in the study area appearing at the beginning of the EHIII period. Donovan suggested that both varieties of Pattern-painted wares of EHIII date, i.e. Dark-on-Light and Light-on-Dark, had to some extent been influenced by local traditions of the previous EHII period reflected in the use of glaze, but that they were brought about by migrating people possibly originating in Anatolia, who reached the mainland via the northern Cyclades (1961, 128-129, 144). He saw the Light-on-Dark technique as related to the Early Cycladic incised ware (1961, 131).

Wünsche disagreed in part with Donovan's theory, as he definitely opposed the idea that Early patterned ware had anything to do with the later varieties of this ware (1977, 75, 78). In his analysis of the Pattern-painted ware at Kolonna on Aigina, Wünsche tentatively identified a "missing prestage" of Dark-on-Light ware,[5] which he called the "Aigina assemblage". This meant that Kolonna was the place where the EHIII variety of Dark-on-Light ware had developed for the first time, influenced by

5. That a hiatus in the development of the Dark-on-Light ware existed was brought to our attention by Müller (1938, 89).

new impulses or immigrants coming from the Cyclades, or from Anatolia via the Cyclades (Wünsche 1977, 68-69, 74-75, 87, 93).

The English scholar French suggested (as Donovan had done before him) that the EHII glazed ware might have been the common ancestor to the Pattern-painted wares of the EHIII period (1968, 61). In French's inventory of the EHIII Dark-on-Light and Light-on-Dark pottery he reached the conclusion that the distribution of these wares was governed by geographical factors, and that the Helicon-Cithaeron-Parnes mountain range functioned as the dividing line between one Central Greek ceramic region[6] with the largest density of Light-on-Dark pottery in Boiotia and Phocis, and one southern region comprising the Peloponnese where Dark-on-Light pottery was more commonly found (French 1968, 59-61 figs.78-79; 1972, 20-22 figs.11-12). French continued by saying that the division into two different "pottery zones" could, in his opinion, be the result of isolation of Boiotia and Phocis from new "fashions" of the Peloponnese, as exemplified by the cessation at Eutresis of common EHII shapes coupled with the appearance of Light-on-Dark ware there and of Dark-on-Light ware in the Peloponnese (French 1972, 21).

In 1979 Rutter proposed that it was a survival of the preference for painted pottery, exemplified by EHII glazed ware (thereby following Donovan and French), combined with Cycladic influences which resulted in the EHIII Pattern-painted wares. Both the actual patterns used and their placement on the vessels owed much to the earlier Pattern-painted pottery of the Keros-Syros culture on the Cyclades according to Rutter (1979, 16). However, Rutter has developed this theory further and a most interesting "analytical synopsis" of Pattern-painted wares of EHIII date was presented by him at the centenary conference of the British School at Athens held in Manchester in 1986 (1988, 73-89). Behind this analysis lies a large amount of unpublished material, especially from Lerna IV (Rutter 1988, 86 n.1). The primary aim of the analysis was to make a stylistic comparison between the Pattern-painted wares from two different pottery zones, i.e. the Light-on-Dark in central Greece and the Dark-on-Light in the NE Peloponnese, in order to identify the degree of similarity between the two[7] (1988, 74-84). The following conclusions were reached by Rutter:

1) Light-on-Dark painted pottery lacked antecedents on the Greek mainland.

2) Its ancestry was to be found in the painted White-on-dark ware and

6. Goldman had also envisaged a geographical division along these lines (1931, 116).

incised and white filled pottery found, for instance, at Thermi on Lesbos and Emporio on Chios, at Troy and in the Yortan culture in West Anatolia, at a time corresponding in date to Troy I-early II.

3) The Dark-on-Light painted pottery was presumably somewhat similar in origin to the Light-on-Dark ware, but it had also been influenced by EHII and ECII Keros-Syros painted pottery.

4) However, most important was the influence on the Dark-on-Light pottery of incised, plastic and impressed pottery from the ECII Cyclades, as exemplified in the "Kastri Group", which in its turn imitated basketry[8]. Did this imply a decreased degree of sedentism in the Peloponnese during EHIII (Rutter 1988, 83-87 n.4, 89 fig.21)?

Accepting that no antecedents to the Light-on-Dark ware are to be found on the Greek mainland, we should next try to see if a connection exists between this "new" feature and the documented destruction layers (Fig.11).[9] Relatively small quantities of Light-on-Dark ware have been recovered on Peloponnesian sites. Lerna (No.A:1) and Tiryns (No.A:2) seem to have slightly more of this type of pottery than other Peloponnesian sites, in neither case meaning much more than a handful of sherds. At Mycenae (No.A:5), Berbati (No.A:6), Prosymna (No.A:7) and Asine (No.A:11) in Argolis and at Zygouries (No.B:1), possibly Tsoungiza (No.B:2), Cheliotoumylos (No.B:4), Gonia (No.B:7) and Korakou (No.B:8) in Corinthia, and finally at Teichos Dymaion in Achaia (No.C:2), very small quantities of Light-on-Dark ware are found. Moreover, in none of these instances are the sherds well stratified.

7. Scientific tests have shown that some interaction and influence existed between the two ceramic zones, as neutron activation of sampled sherds from Korakou showed that both types of Pattern-painted wares were made locally in the NE Peloponnese (Attas, Fossey and Yaffe 1987, 87 table 6, 88-89). Besides, Rutter proposed that actual hybrids existed in a "geographically intermediate zone" (probably Corinthia and Megarid, possibly Aigina), where Light-on-Dark technique was using Peloponnesian motifs (1988, 87 n.3).

8. This is not a novel idea; e.g. Wace and Blegen suggested basketry to be influencing the EH patterned ware (1919, 178), in their turn developing thoughts presented in 1909 by a German scholar (Schuchhardt 1909, 40-48), who in his turn referred to work presented in 1890 in Berlin by von Stradowitz (mentioned in AA 1890, 106-107).

9. As the Peloponnesian Dark-on-Light ware at least in part was considered to be of local origin influenced by the preceding EHII Pattern-painted ware, it is not a "new" feature in the same sense as the other ceramic elements discussed in this section.

Consequently, it is clear that the Peloponnese was largely unaffected by the "new" Light-on-Dark pottery technique and that the small quantities cannot reasonably be coupled with the destruction layers. Furthermore, in the cases where the instances of this type of pottery are not direct imports from central Greece to the Peloponnese, they have been shown to be produced locally in the NE Peloponnese (Attas, Fossey and Yaffe 1987, 87 table 6, 88-89). It is noteworthy that Tiryns, with what might be the largest, yet modest, amount of Light-on-Dark ware in Argolis, has been shown to produce its own variety of this otherwise central Greek type of pottery (see Attas, Fossey and Yaffe 1987, 87 table 6:KRK 47, 88).

Some scant evidence of Light-on-Dark pottery has been documented at Eleusis (No.H:2) and Athens (No.H:3), whereas Kolonna on Aigina (No.H:5), as in the case of the "Lefkandi I" features, has produced a larger amount of this type of ware, both before and after the destruction of City V. Ayia Marina in Phocis (No.K:2) and Thebes (No.i:6), Eutresis (No.i:7) and Orchomenos (No.i:8) in Boiotia have all produced large amounts of Light-on-Dark pottery, reflecting the popularity of this pottery in central Greece. But it is more or less clear that the appearance of this ware in central Greece is not connected with any destruction layers either (except possibly at Thebes). On Euboia faint traces of this type of pottery have been found at Manika, on the surface (No.J:1), and at Lefkandi (No.J:2) where two sherds were recorded from Phase 2.

Fine Gray-burnished ware

For a long time Gray Minyan ware was considered to be one of the hallmarks of the Middle Helladic period. Suspicions arose about its true date as early as 1925, when Frödin and Persson suggested that an earlier group or prestage of Gray Minyan ware possibly existed (1925, 68-69).[10] That their suspicion was correct was confirmed stratigraphically in 1937 through the excavations undertaken by Säflund at Berbati (1965, 103, 158-159). But Säflund's excavation report which contained this new evidence, albeit finished in 1937, was not published until almost 30 years later in 1965. By that time Caskey had published the same type of stratigraphical evidence from Lerna regarding this Gray Minyan of EHIII date (1960, 296-297).

10. The question concerning whom to credit for the discovery of the EHIII ancestry of Gray Minyan ware has caused some controversy (Weisshaar 1981, 246 n.299; Rutter 1983a, 327 n.2).

A comprehensive study of the EHIII predecessor of Gray Minyan ware, termed Fine Gray-burnished ware, was published in 1983 by Rutter (1983a, 327-355). A total of 121 Fine Gray-burnished vessels were identified at Lerna as coming from secure EHIII contexts, of which 85 could be assigned to a specific subphase within the EHIII period. Over 90% of the diagnostic sherds belonged to either Bass bowls (45), tankards (34) or kantharoi (23) and of these 121 vessels almost two thirds were wheelmade. In a survey of other central and southern Greek sites, Rutter documented EHIII Fine Gray-burnished ware at: Tiryns and Berbati in the Argolid, Nemea and Gonia in Corinthia, Olympia in Elis (both the Altis and the New Museum site), Kolonna on Aigina, Lefkandi on Euboia and Eutresis in Boiotia[11] (1983a, 329-342). We can now add Asine in Argolis to this list of sites (Nordquist 1990, 241-243).

In his analysis of the origin of the Fine Gray-burnished ware, Rutter drew the following conclusions. The shoulder-handled tankard and the kantharos, which occur in Fine Gray-burnished ware, have no ancestors in Peloponnesian EHII pottery. A western Anatolian origin for both these shapes was suggested instead. Lefkandi on Euboia functioned as an intermediary location in Rutter's hypothesis, from where these "Anatolian" shapes were then transmitted to central Greece, where they were modified[12] before finally reaching the Peloponnese. Two variants of kantharoi were identified, one Olympian and one Lernaean type (1983a, 343-347). The third principal shape among the Fine Gray-burnished ware, the Bass bowl, has no connection with the Anatolianizing "Lefkandi I" assemblage according to Rutter, but has a long history in Boiotia, Attica and Euboia (1982, 487 n.52; 1983a, 347).

Rutter concluded that the "new" ceramic shapes, which supposedly emanated from a central Greek synthesis of a couple of "Lefkandi I" shapes with local features, spread out from that region, reaching the Peloponnese at the beginning of the EHIII period by two separate routes, one ending up at Olympia, the other in the NE Peloponnese. This hypothesis implied that "an immigration on a fairly large scale of a new population element" reached the Peloponnese from "central Greece in general and probably Boiotia in particular" (Rutter 1983a, 348-350).

11. Outside our study area such pottery has been identified at Pelikata on Ithaka and at Pefkakia in Thessaly.

12. This so-called "modification" of the tankard was not of small proportions, and is discussed at some length by Rutter (1983a, 344 n.54).

Despite the interesting analysis referred to above, one major objection remains, and that concerns Rutter's main theory according to which central Greece was the location of a synthesis between Anatolianizing and local Greek elements. If such a synthesis really had taken place in central Greece, the almost complete absence of EHIII Fine Gray-burnished ware in Boiotia must be considered to be truly remarkable.[13]

Rutter brought our attention to two ceramic "hybrids", found at Kolonna on Aigina[14], which combined canonical EHII and "Lefkandi I" shapes and features (Rutter 1983a, 344 n.54). Such "hybrids" are the clearest evidence we have of the actual fusion between two different elements, in this case representing "old" and "new" EHII features, and no such "hybrids" have yet been found in central Greece. Is it then not more likely that two of the "new" EHIII shapes, the tankard and the kantharos, both of which supposedly were part of the "Lefkandi I" legacy, initially landed on Euboia and then reached the Peloponnese by sea, via Kolonna on Aigina,[15] rather than by land from central Greece, as suggested by Rutter? The ancestry of the Bass bowl is not disputed, and this can be taken as an indication that at least some influences reached the Peloponnese also from central Greece at the beginning of the EHIII period.

The origin of Gray Minyan ware has been widely disputed ever since Schliemann came up with the name in the 1880s. The argument has mainly dwelt upon whether Gray Minyan was a western Anatolian import or an indigenous Greek invention. Clear arguments against a direct connection between the two areas have been put forward by French and Rutter. One argument was that even if two of three principal shapes in EHIII Fine Gray-burnished ware were of western Anatolian origin, they were not seen in the corresponding West Anatolian gray-burnished ware. Another argument was that there was no large amount of gray-burnished pottery in the intrusive "Lefkandi I" pottery assemblage (French 1972, 23; Rutter 1983a, 349 n.67). French suggested that it was the "idea" of a gray ware which spread from Anatolia to the Greek mainland (1966b, 109). However, I would like to suggest that it was not only the "idea", but above

13. Rutter commented upon the dearth of material in Boiotia, but considered it to be the result of chance and thought that once more EHIII material has been properly published from this region, e.g. from Thebes, Fine Gray-burnished ware will appear (1983a, 352 n.74).

14. Incidentally a ceramic "hybrid" combining central Greek Light-on-Dark technique with Peloponnesian motifs has also been found at Kolonna on Aigina (Rutter 1988, 87 n.3).

15. Both these vessel types are attested at Kolonna (see Rutter 1983a, 344 n.54, 345 n.57).

all the skill, of making a gray ware, which arrived with the group of people who, have been postulated, brought the "Lefkandi I" assemblage from West Anatolia to Euboia.[16] Via Kolonna this "new" technological knowledge and fashion eventually reached the Peloponnese.

Finally we will look at the relationship between the appearance of Fine Gray-burnished ware at individual sites in the study area and the possible presence of "destruction layers" at these sites (Fig.12). As already noted, Lerna in Argolis (No.A:1) produced a total of 121 whole or fragmentary Fine Gray-burnished vessels spanning the EHIII period. In this case as in all other cases concerning the introduction of "new" wares, the well-known destruction of the "House of the Tiles" preceded the introduction of this particular ware. In the new excavations of the "Unterburg" at Tiryns (No.A:2) the German excavators have found several vessels of Fine Gray-burnished ware which also in this case span the EHIII period; i.e. material corresponding in date to all three subphases of Lerna IV has been documented at Tiryns. Two fragments of this ware belong to stratum 9, contemporary with Lerna IV:1, which was both preceded and succeeded by a destruction layer, while the remaining approximately 50 sherds of this type of ware belong to strata 10-13 and thus are preceded by a destruction layer. Two sherds have been found in the "Lower Town" at Tiryns and are possibly preceded by a destruction layer.

A certain amount of Fine Gray-burnished ware (c. 30 sherds have been published) was recovered at Berbati in Argolis (No.A:6) and the "vast majority" of this material has been compared to pottery of Lerna IV:2-3 date. Thus, at Berbati the introduction of this ware was succeeded by the destruction of the settlement at the end of EHIII. The five sherds of Fine Gray-burnished ware from Asine (No.A:11) have not been correlated to the EHIII sequence at Lerna, but it is clear that they appeared after the destruction of the site.

The situation at Tsoungiza in Corinthia (No.B:2) is quite different from the other sites with Fine Gray-burnished pottery. As many as several hundred sherds of Fine Gray-burnished ware were found at this site and are correlated with Lerna IV:2-3 material. The stratigraphy is quite disturbed, but two periods of abandonment, preceded by destruction layers, are

16. We do not know the exact amount of Fine Gray-burnished ware found at Lefkandi but it is quite clear that it exceeds the amount found in Boiotia during the EHIII period. Furthermore, it is possible that the handful of gray ware referred to by French as coming from Phase 1 at Lefkandi was not a later intrusion as he believed, but instead presumably reflected both the "desire" and "the capacity to produce a uniformly gray" ware (see Rutter 1983a, 349).

identified at the site. The appearance of such a large amount of a "new" ware takes on an added interest when it is seen that it was immediately preceded by a period of abandonment.

Between 30-35 unpublished Fine Gray-burnished sherds from Gonia in Corinthia (No.B:7) are considered to span the whole EHIII period. No signs have been found at Gonia of any destruction layers.

The two Olympian sites, the New Museum site (No.D:4) and the Altis (No.D:5) have both produced some Fine Gray-burnished ware, even if this type of pottery is rarer at the New Museum site than in the Altis (only two identified shapes of Fine Gray-burnished ware clearly come from the New Museum site, compared to about 10 from the Altis). The New Museum site material is seen as contemporary with Lerna IV:1-2, while the Altis material possibly should be dated exclusively to the first subphase of EHIII. The Altis area lacks tangible evidence of destruction layers, whereas the destruction layer at the New Museum site cannot be dated more accurately than to some time during EHIII:1-2; thus its exact relationship to the scant Fine Gray-burnished material cannot be worked out.

Three Fine Gray-burnished sherds, all parts of shoulder-handled tankards, were recorded at Kolonna on Aigina (No.H:5). All three are correlated with Lerna IV:3 material. While two of them are associated with one of the destroyed houses of City V and consequently synchronize the destruction of City V with the stratigraphy at Lerna, the other tankard belonged to findgroup 22 and thereby postdates the destruction.

So far only one site in Boiotia, Eutresis (No.i:7), has produced some Fine Gray-burnished ware consisting of two tiny sherds. At Lefkandi on Euboia (No.J:2) the situation is unclear because very little has been published from the site. We do know that Fine Gray-burnished ware, contemporary with Lerna IV:1-3, has been found at the site, but of unknown quantity.

Finely Incised and/or Impressed ware

It was once again Rutter who published the first analysis of this ware (1982, 459-488), followed by Maran (1987, 77-85). Finely Incised and/or Impressed ware of EHIII date is described as a:

> highly distinctive..assemblage whose pronounced differences from that which...[went before]...have led many Aegean prehistorians to posit a migration or invasion of new peoples into the Peloponnese at this time (Rutter 1982, 461).

In Rutter's analysis 38 samples of Finely Incised and/or Impressed sherds from Lerna, three from Korakou and one from Zygouries are included, as well as comparanda documented at Mycenae, Prosymna, Tiryns, Asea, Olympia (both the New Museum and the Altis sites) and Kolonna on Aigina[17] (Rutter 1982, 461-473).

The shape range included all major EHIII forms except ouzo-cups and one-handled cups, and the decoration developed from more elaborate and complex forms during the earlier phases (Lerna IV:1-2) toward simpler patterns during the later phase (Lerna IV:3) when the range of shapes also fell off (Rutter 1982, 474-480). Rutter tentatively identified a very early stage of EHIII at Olympia/the Altis and at Korakou, which might have predated the earliest EHIII occupation at Lerna; during this stage, Finely Incised and/or Impressed ware appears to have been the only means of decorating pottery at the expense of Pattern-painted pottery, which did not appear until slightly later at these two sites (1982, 483-484, 488).

In connection with the analysis of the Finely Incised and/or Impressed ware, Rutter once again implied, as in the case of the Fine Gray-burnished ware, that the EHII pottery tradition in central Greece (as documented at Orchomenos, Eutresis, Thebes and Ayia Marina) should be seen as the immediate predecessor to the EHIII culture in the Peloponnese (1982, 486 n.47, 487 nn.50,52). Olympia crystallized, according to Rutter's theory, as one of the destinations of a westerly route of immigrants from central Greece coming, "probably by sea down the Corinthian Gulf from a point in SW Boiotia or further west" (Rutter 1983a, 348).

Two odd features within the EHIII ceramic repertory, which made Olympia stand out from the rest of the Peloponnese, were the type of handle attachment of the kantharoi in Fine Gray-burnished ware and the one-handled version of the Bass bowls in Finely Incised and/or Impressed ware. These features were seen as central Greek in origin (Rutter 1982, 486 n.47; 1983a, 347 n.60). I do not doubt that these deviations are conditioned by a Boiotian origin, but the third argument used by Rutter, to show this alleged central Greek influence at Olympia (as well as in Argolido-Corinthia), is more questionable. This concerns the neck-handled tankard.

The ultimate origin of the EHIII neck-handled tankard shape, as it is documented at Tiryns (Podzuweit 1978, 488 fig.36:11), at Lerna (Rutter 1986, 44) and at Korakou (Rutter 1982, pl.100:39), is probably the "Lefkandi I" tankard, just as Rutter has suggested (1982, 486-487). But the

17. Pelikata on Ithaka was also included by Rutter, but this island is not within our study area.

Olympian examples of neck-handled tankards (Weege 1911, pl.5:5-8) of EHIII date are quite different morphologically from the NE Peloponnesian examples referred to above, as was pointed out by Maran (1987, 83 n.32).

Maran considered the origin of the Finely Incised and/or Impressed ware and some vessel forms to be found in the "Cetina culture" located on the Dalmatian coast and in neighbouring regions in Bosnia and west Serbia. He also suggested that groups of NW Balkan immigrants brought both the technique and the fashion of making this type of ware to the NW Peloponnese at the junction between EHII and EHIII (Maran 1987, 81-82). The main flaw in Maran's theory is the geographical lacuna in the distribution of Finely Incised and/or Impressed ware which is seen between the NW Peloponnese and the NW Balkans (see Maran 1987, 78 fig.1).

Nevertheless I believe that the connections documented by Maran between the "Cetina culture" and the Finely Incised and/or Impressed ware indicate: (1) a possible place of origin for this type of pottery, (2) a point of entry to the NW Peloponnese of this ware and (3) an explanation for the morphological differences between the neck-handled tankards from Olympia and those from the NE Peloponnese. The possible lacuna in Albania of Finely Incised and/or Impressed ware is undoubtedly odd, but of no great importance if one envisages a sea-borne trade-route or arrival of this "new" influence.

We will now look at the relationship of the occurrences of Finely Incised and/or Impressed ware and possible "destruction layers" (Fig.13). As in the cases of the other EHIII wares discussed in this chapter, the appearance at Lerna (No.A:1) of the 38 vessels of this type of ware was preceded by the destruction of the "House of the Tiles". One sherd of this ware has been recorded at Tiryns in the Lower Town (No.A:2), where a destruction layer preceded the appearance of this sherd. Rutter has identified one pyxis of Finely Incised and/or Impressed ware among Stamatakes' EH material found in the 1870s at Mycenae (No.A:5). No signs of EH destruction layers are documented at Mycenae. Possibly two vessels of this type of ware were published by Blegen from Prosymna (No.A:7). The only securely identified vessel was a neck-handled jug which is synchronized with Lerna IV:3 material. As in the case of Mycenae, Prosymna lacks destruction layers.

Zygouries in Corinthia (No.B:1) produced one pedestal-footed cup of Finely Incised and/or Impressed ware, which is tentatively dated to a period corresponding to Lerna IV:2. At this site a destruction layer, possibly followed by a period of abandonment, preceded the appearance of

this vessel, which likewise probably was succeeded by a period of abandonment. Three vessels of Finely Incised and/or Impressed ware, two pedestal-footed cups and one neck-handled tankard, were recovered at Korakou by Blegen (No.B:8). Rutter suggested that the vessel from stratum VIII at Korakou possibly was contemporary with Lerna IV:2, while the vessel from stratum IX was seen as contemporary with Lerna IV:1. I have discussed the dating of the destruction layer at the site in Chapter 4.1 and reached the conclusion that the vessel found in stratum VIII probably dated the destruction layer. This means that the destruction layer preceded one and succeeded one Finely Incised and Impressed vessel found at Korakou.

Both Olympian sites (Nos.D:4-5) have produced some Finely Incised and/or Impressed pottery. Around a dozen vessels came from the New Museum site at Olympia and have been synchronized with EHIII:1-2 material at Lerna. These samples are the ones that make a correlation with Lerna possible; but as we have seen before, the presence of a destruction layer at this site is far from certain. If we assume that a destruction occurred at the site, the Finely Incised and/or Impressed material was found mixed into this layer.

Roughly the same amount of Finely Incised and/or Impressed material has been published from the Altis site (No.D:5) as from the previous site. This material has been dated to a very early phase of the EHIII period. The Altis area in Olympia lacks tangible evidence of any disturbances toward the end of the EH period. One flask of Finely Incised and/or Impressed ware which has been synchronized with Lerna IV:2 material was found in the destruction layer at Asea in Arcadia (No.E:1).

Finally, let me conclude with the two Finely Incised and/or Impressed vases from Kolonna on Aigina (No.H:5). The rim-handled tankard from City IV has been correlated with Lerna IV:1, while the pedestal-footed cup which was found in the destruction layer of City V was given a tentative date corresponding to Lerna IV:2. The destruction of City V has been dated to some time during subphase 3 of EHIII, dated by the finds of two tankards of Fine Gray-burnished ware discussed above. Thus, the presence of the Finely Incised and/or Impressed ware precedes the destruction of the site.

Overall, this particular ware constitutes the most exclusive and geographically restricted type of pottery of EHIII date discussed in this study.

5.3. Terracotta anchors and stone shaft-hole hammer-axes

Several miscellaneous objects which were found in Lerna IV have at one point or another been considered to indicate "the arrival of a new culture" (Caskey 1968, 314). Distinctly new artefact types in Lerna IV, which were not seen until then, were so-called terracotta anchors and shaft-hole hammer-axes of stone. Of these two the terracotta anchors are most enigmatic and nobody has yet, to my mind, come up with a plausible explanation of their usage, although many suggestions have been made.[18] The anchors, about 5-10 cm high and equally wide, are clay objects which were shaped like anchors of today with two arms and a shank which sometimes was pierced. These anchors have been used by many scholars in order to prove one immigration theory or another.[19] Several typologies have also been developed for them, one more elaborate (Weisshaar 1980, 33-49) than the other (Banks 1967, 628-629), but neither of them has resulted in any functional or chronological differentiation.

Banks, in connection with her work on anchors from Lerna, presented some comparanda in which she dated the anchors found at the following sites to the EHII period: Asea, Asine, Tiryns, ancient Corinth, Cheliotoumylos, Raphina, Eutresis and Kirrha, thereby changing the date previously given for these anchors, which had been EHIII (Banks 1967, 628-637). The notion that these anchors probably were carried over from the EHII period to the EHIII was supported by Howell (1973, 83). We have just mentioned that Caskey in 1968 proposed that anchors were one of the "new" features heralding the arrival of another culture in the Peloponnese at the beginning of EHIII. But by 1979 he had accepted the earlier dates given to the anchors (i.e. EHII) and furthermore drawn the conclusion that, contrary to indicating "the arrival of a new culture", the anchors "just possibly" originated in the Peloponnese from where they then spread northwards (1986, 19). Can such a reversion of the hypothesized "movement" of terracotta anchors be substantiated by the material at hand?

18. See Buchholz and Wagner 1987, 121 n.2, 122 nn.7 (add Hanschmann 1976, 95 n.224), 10-11, 124 nn.14, 17 (add Weisshaar 1989, 51 n.269). Buchholz and Wagner suggested that a possible usage for the anchors was to hang something on them in order to dry near the hearth (1987, 124).

19. Cf. Buchholz and Wagner 1987, 135 n.116. To this list we can add Koumouzelis 1980, 226 (with the arrival of northern elements, i.e. the Baden-Kostolac culture), and Hiller 1982a, 41-48 (with the arrival of the Indo-Europeans).

Weisshaar remarked that the amount of datable anchors was *too* small for us to use them as evidence for any kind of migration theory (1980, 45-46). The same conclusion was reached by Buchholz and Wagner who said that the area of distribution of this object, which besides the Balkans includes Malta and southern Italy, excludes any kind of migration theories because no ethnic connection can be shown to have existed between these areas. They saw the wide distribution of anchors as the result of trading contacts, nothing else (1987, 135-136).

I will proceed by mentioning the terracotta anchors which have been found within the study area in order to see if they can be connected with a hypothetical "arrival of a new culture" as Caskey originally believed, or if his reversed "movement" of the anchors is a more likely interpretation of the archaeological data (Fig.14).

Stratified EH terracotta anchors have, to date, been found at four different sites in the Argolid. Caskey mentioned in 1979 that as many as nine anchors of EHIII date were found at Lerna (No.A:1), but of these only six are published.[20] There is no doubt that these anchors should be dated to the EHIII period and thus can be considered as a "new" feature at the site after the destruction of the "House of the Tiles".

The upper part of the shank of a terracotta anchor made of Black polished ware was found in the new excavations of the "Unterburg" at Tiryns in a stratum dated to a developed EHII phase (No.A:2). This phase was preceded by a great fire, which had destroyed the previous settlement, but was itself also destroyed by fire. One arm of another EH anchor likewise found in the new excavations, has been correlated in date with Lerna IV:1 and thereby preceded a destruction layer .

Two anchor-shaped "pendants" (not illustrated) were found in securely dated EHIII layers at Berbati (No.A:6). This is noteworthy because it means that they appeared before the destruction layer recorded at the site. The terracotta anchor found at Asine (No.A:11) is unique, in both shape and placing of the holes. The excavator considered it to be of EHIII date, but his concept of what was to be considered as of EHII and what of EHIII date has been shown to be wrong. There is actually a larger statistical chance that it belongs to the EHII material than to the EHIII one, because what Persson considered to be the EHIII stratum in square G 14 (between levels 260-320) contained, besides this anchor, almost exclusively EHII

20. It has been argued that two of the six objects which were published as anchors by Caskey (1956, Pl.47:m,o) actually should be considered to be simple hooks (Buchholz and Wagner 1987, 133 n.97).

pottery (contaminated with a few MH sherds).[21] I therefore suggest that the anchor which was found at Asine probably should be dated to the EHII period; however, its relation to the destruction layer tentatively dated to EHII:C-D remains unknown.

In Corinthia terracotta anchors have been found at three different sites of which only two have been published, the third being Tsoungiza. Most of the four or five anchors found at Tsoungiza are said to be of EHII date (synchronized with Lerna III:B/C); consequently they both antedate and postdate different destruction layers documented at the site (No.B:2). At Cheliotoumylos (No.B:4) a well was excavated where numerous skeletons, accompanied by more than 120 vessels of EHII date and other artefacts, were found. Included among these artefacts was one terracotta anchor, which consequently also should be dated to the EHII period. A fragmentary anchor was found in ancient Corinth by Kosmopoulos (No.B:6), who dated it to period V (EHII). That this anchor is of EHII date should not be doubted as it was found in a large EHII deposit. The site was abandoned after the EHII period, but no signs of a preceding destruction layer have been found at ancient Corinth.

Five anchors have been mentioned by Koumouzelis in her dissertation concerning the excavated material from the New Museum site at Olympia (No.D:4). Of these five only three are considered stratified by her. The stratigraphical problems at the site are discussed at some length in the catalogue, and unfortunately we must conclude that we cannot be more specific about the dating of these anchors than to refer them to some time during EHIII:1-2. The elusive destruction layer at the site has also been dated to EHIII:1-2, which makes it impossible to judge the relationship between the anchors and the possible destruction of the site.

Leaving the Peloponnese behind we shall turn our attention to Attica. Kolonna on Aigina (No.H:5) has produced eight terracotta anchors in the excavations undertaken during 1972-1977. Six of these originated from houses 1 and 12, which were destroyed in the big catastrophe which ended City V. Another anchor was found in the make-up of the floor of house 3, thereby also belonging to City V, but to the beginning of this settlement. All these seven anchors were found in layers antedating the destruction of the site. One terracotta anchor emanated from settlement VI (findgroup 26), thereby postdating the destruction, which was also the case with the late MH anchor recovered at Kolonna.

21. Persson's diary, entries 2/4, 5/4, 8/4 1930, levels 260-330.

Theochares, who in 1951 excavated the coastal site of Raphina (No.H:9), published one fragmentary anchor which was found near the metalworking area on the beach. The pottery material from this area is of EHII date, which therefore logically also should be the date of the anchor. No destruction layer of EH date has conclusively been identified at Raphina. It is interesting to note that recent work at Koropi (No.H.13) exposed another anchor probably of EHII date (not illustrated) in an area used for metalworking. Is this parallel to Raphina fortuitous? Koropi, which is not a settlement site, lacks any signs of destruction layers.

Tzavella-Evjen has published eight terracotta anchors from Lithares in Boiotia (No.i:5). Six of these are securely dated to the EHII period, while the remaining two were surface finds. Spyropoulos had previously found two anchors in an upper layer which contained both EHII and EHIII material. The exact dates of these two anchors remain therefore unclear. In the case of Lithares I have not considered the evidence conclusive in order to infer that the site was destroyed at the end of the EHII period in the way this has been done by the excavator. On the contrary, material spanning the EHII-EHIII-MH periods has been recorded at the site, which led me to suggest that a continuous habitation seems possible.

The two terracotta anchors which were discovered at Thebes in 1975 (No.i:6) were found out of context, but around an apsidal house of late EHII date. Thus, I believe that these anchors likewise can be dated to a late EHII period. We have seen in Chapter 4.1 that individual houses at Thebes were destroyed, while contemporary houses remained intact. In the light of the new data presently being published from Thebes, I have suggested that many parts of the settlement were destroyed, at a period correlated with Lerna III:D, while other parts remained intact. Consequently these two anchors might be part of the make-up of the destruction layer, but this cannot be proven.

Five terracotta anchors were found at Eutresis by Goldman, which she dated to EHI and early EHII. The EHI date given to the anchor found in House I has been questioned, but I do not find enough evidence in support of a change in this date. Furthermore, no matter how we date these anchors, whether to EHI or EHII, they were present at Eutresis a long time before the site was destroyed at the end of the EHIII period.

In Phocis finally, a couple of anchors were found at Distomon by Sotiriades in the beginning of the 20th century (No.K:1). The dating of the material from this site has been somewhat controversial and dates pending from Neolithic to Middle Helladic have been proposed. Both Vatin and French have recognized EHII material from the site in the Museum at

Chaeronea, while Vatin also diagnosed EHI material from the site. Considering these facts, I would like to suggest that the two anchors found at Distomon should be given a *terminus ante quem* date of EHII.

One anchor was recorded at Kirrha (No.K:5). It should probably be dated to the EHII period, thus appearing before the destruction of the site at the end of that period. There is, however, some confusion concerning its find context as the excavators have referred to it as coming from *both* probes 3 and 5!

In completing this discussion about terracotta anchors we will briefly mention the ones found within the study area for which the dates are largely unknown. The find context of a fragmentary anchor from Tiryns which has been published by Müller (1938, 64, pl.25:3) is unknown.[22] EH anchors have been mentioned among the finds from the excavations at Epidauros, but no specific find context or dates have been given for them (No.A:15). Two anchors, possibly of EH date, but impossible to date more accurately, have been found at Teichos Dymaion (No.C:2).

Holmberg, who excavated at Asea in Arcadia[23], had found a fragmentary anchor which lacked both its arms (No.E:1). This anchor was found in a "late EH layer" according to the excavator. But the stratigraphy at Asea is rather mixed up; consequently there is no way to discern a more exact date for this anchor. Several anchors, of unknown date and amount, have been found at Orchomenos in Boiotia (No.i:8).

Buchholz and Wagner have mentioned the existence of anchors from both Kastron Magoula and Magoula Balomenou near Chaeronea in Boiotia (1987, 129-130). These anchors, seven in total, have never been published, but were seen by the authors at the museum at Chaeronea and in the study collection of the British School at Athens. Concerning the dates of these anchors we can only guess. EHI-II and MH, but no EHIII pottery, has been recorded from the Kastron Magoula (Fossey 1980, 156), whereas the pottery excavated from Magoula Balomenou is earlier, spanning the whole Neolithic period (Fossey 1988, 382-383).

At least two[24] fragmentary anchors from Galaxidi in Phocis were found in connection with roadwork cutting an EH settlement mound in half. The site has not been excavated, but the EHI-II material found in the bull-

22. Banks has nevertheless dated it to the EHII period (1967, 636).

23. The object published by Kardara from Psophis in Arcadia (1971, 251-254, fig.1) is not considered to be an anchor in this study; see also Weisshaar 1980, 45 n.106.

24. Weisshaar (1980, 36 n.18) suggested that a third anchor was included among the published material (see Vatin 1964, 563 fig.4:3).

dozed rubble was published by Vatin (1964). As these finds are not stratified the anchors could be either EHI or EHII in date (see Vatin 1964, 560, 563 fig.4:5, 565 fig.6:6, 566) and consequently I propose a *terminus ante quem* date of EHII. Rescue excavations in 1980 at Amphissa in Phocis recovered two EH terracotta anchors (Rethemiotakes 1980, 265-267), but they are not dated according to subphase within the EH period. The pertinent data have thereby been brought up to date and are compiled in Fig.14. Some tentative conclusions can be made:

1) EH terracotta anchors have been found at 19 sites within the study area almost equally divided between the Peloponnese and the east-central area (9 versus 10).

2) Of the datable anchors found in the Peloponnese, where the subphases of the EH period are known, eight or nine are of EHII date and seventeen of EHIII date. Of the datable anchors in the east-central area, at least fourteen are of EHII date, while eight are EHIII. In the case of Koropi the EHII date is uncertain, while an EHI date has been suggested for one anchor found at Eutresis. At Galaxidi (not included in the catalogue) and Distomon in Phocis (No.K:1) I have suggested a *terminus ante quem* date of EHII.

3) Of the 4-6 sites which were destroyed at the end of the EHII period (see Fig.2) it was only at Lerna that the anchors appeared *after* the destruction, while the anchors at Asine, Thebes and Kirrha appeared *before* the destruction at the end of the EHII period.

4) Terracotta anchors appeared *before* the destruction of Berbati at the end of the EHIII period and both before and after the destruction of Kolonna sometime during EHIII:3.

5) Lerna in the Argolid (No.A:1), Nichoria in Messenia (McDonald 1972, 258) and Kolonna on Aigina (No.H:5) are the only sites which, to the best of my knowledge, have published MH anchors.

Can we make a chronological distinction between the southern and northern anchors? In Fig.14 it can be seen that the only sites within the study area which possibly produced anchors earlier than EHII were Eutresis in Boiotia and Galaxidi in Phocis. I do not think that we have any reason to question the EHI date given for the finds in House I at Eutresis, which means that we have at least one possible anchor of EHI date within the study area, and that at a site in the northern part of this area.

As already noted, anchors of possibly Neolithic date have been found at Magoula Balomenou near Chaeronea in Boiotia which is situated NW of Eutresis. Thus a connection between these two sites could possibly be argued, where the anchors at Magoula Balomenou are older than the examples found at Eutresis. We do not seem to have any anchors further north or northeast which can be dated before the ones found at Magoula Balomenou.

At Pefkakia Magoula in Thessaly, anchors were found in the so-called "oberes Rachmanistratum", which is dated to some time during EHII when compared to the south (Weisshaar 1989, 50, 66, taf.82:1-2, 145). At Kritsana in Macedonia the oldest anchors are dated to early EHII (Buchholz and Wagner 1987, 127 nn.45-46) and the anchors from Sitagroi are dated to EB3 (Renfrew, Gimbutas and Elster 1986, 478), whereas the anchors which were found in phase IIa at Maliq in SE Albania have been seen as contemporary with EHI-II further south (Buchholz and Wagner 1987, 128 n.52; Weisshaar 1989, Taf.145). The oldest anchors from Poliochni on Lemnos, finally, are considered to be contemporary with a middle and late phase of EHI (Buchholz and Wagner 1987, 126 nn.33-34).

With a fair amount of imagination we might conclude that the terracotta anchor originated in Boiotia from where it spread in all directions.

Stone shaft-hole hammer-axes

We shall now discuss another tool which also has been considered as an "intruder" indicating that a new material culture had been introduced in the EHIII period: the "bored stone hammer-axe" (Caskey 1968, 314). This object is by other scholars variably called "bored celt" (Wace and Thompson 1912, 164), "battle-axe" (Lamb 1936, 182), "shaft-hole hammer-axe" (Howell 1973, 77) and so on. In the following discussion I will use the latter name. The tool in question consists of an axe-head of stone which is pierced vertically, leaving a hole about two cm in diameter, and which has a blade at one end and a flat or convex peen at the other.

Shaft-hole hammer-axes as a type of implement have often been associated with an "Indo-European" intrusion to mainland Greece (these Indo-Europeans were presumably later to become the earliest Greeks). Many suggestions have been made concerning the origin and direction of this intrusion. We will first take a look at some of these theories. In 1926 Childe suggested that the south Russian steppe was the "homeland" of the early Indo-Europeans, i.e. proto-Aryans, and one of the characteristic attributes of the "Aryan" culture was the perforated battle-axe, originally diffused

from Mesopotamia, which through the migrations of the Aryans reached the east Balkans and Troy (Childe 1926, 183-184, 188-189, 196).

The shaft-hole hammer-axe of stone, among other traits, was used by Fuchs to prove that "Battle-axe people" (Indo-European) reached mainland Greece from northern Europe at the end of the EH period[25] (Fuchs 1937, 117-121, 135-136, 140-143). Persson suggested in 1938 a northern Balkan origin for the perforated stone axes which reached the Greek mainland at the beginning of the MH period. He assumed that the immigrants who carried these axes with them were the first Indo-Europeans (in Frödin and Persson 1938, 433).

Childe's theory that the south Russian steppe was the "homeland" of early Indo-Europeans has been developed into an all-embracing theory by Gimbutas. In her hypothesis many different cultures are brought into play under the name "Kurgan culture", e.g. "the Baden culture/the Vucedol culture/the Bell Beakers", "Corded ware or Battle-axe culture" etc. According to Gimbutas it was during the "third wave" of a population movement from the Pontic-Caspian steppe that the Kurgans expanded into Europe, which in the end brought battle-axes, mace-heads, Corded ware etc. to central and northern Greece during the EHII-EHIII periods (1970, 157-174, 181-186, 190-192).

Persson's line of thought, which was mentioned above, has been somewhat modified by Howell. He suggested that the shaft-hole hammer-axes were introduced to Greece as part of the Baden culture just after the collapse of the EHII culture, thereby forming part of what he has called the "Protominyan" period (EHIII). Howell saw this new influence as coming from the Dalmatian area through Albania and Epirus to the western Peloponnese (1973, 90-92, 95). Other supporters of a Balkan origin are for instance Sakellariou (1980, 126) and Hiller, who on several occasions, has suggested that this type of tool originated in the northern Balkans, especially Macedonia and Thrace (Hiller 1982a, 45; 1982b, 191, 193-194). Hood, on the other hand, suggested that the fashion of making stone shaft-hole tools reached the Greek mainland ultimately from Anatolia, but via the group of settlers who inaugurated the EBA in Macedonia (1986, 33-35).

Let us now, as in the previous discussions of so-called "new" features, first map the findspots of shaft-hole axes in the study area and at the same

25. But that the "Battle-axe culture", alternatively called "Corded ware culture", should have been related to the Indo-Europeans of the Balkans or Greece was recently refuted in a sweeping generalization by Mallory. He says that "...despite strenuous attempts, no one has ever been able to generate a serious case for relating the corded ware culture to the Indo-Europeans of the Balkans, Greece or Anatolia..." (Mallory 1989, 245).

time consider their find contexts and dates (Fig.15). Our starting point is as usual Lerna in the Argolid (No.A:1), where Caskey had observed that this type of axe was among the "new" implements found in Lerna IV (1968, 314). Banks recorded that the first shaft-hole hammer-axes appeared during phase C of Lerna IV, i.e. at the middle of the EHIII period. Shaft-hole hammer-axes continued to be found also in Lerna V contexts. All in all 20 axes were found of EHIII-MH date (Banks 1967, 99-107, 689).

In Stamatakes' work at Mycenae (No.A:5), one fragmentary shaft-hole hammer-axe was recorded as found in the dromos of the Treasury of Atreus. It is said "probably to be of Early Bronze Age", but should, in my opinion, be considered as found out of context and cannot therefore be securely dated to the EH period. At least one, possibly two, shaft-hole hammer-axes were found at Asine which can be dated to the EHIII period (No.A:11), thereby postdating the destruction at the end of the EHII period. Three or four shaft-hole hammer-axes are definitely of MH date. Another fragmentary shaft-hole hammer-axe was recently published from the survey of Makrovouni in Argolis (Dousougli 1987, 198 no.145, 199 fig.25:145). Dousougli does not attempt to date it.

Asea in Arcadia produced two shaft-hole hammer-axes in a stratum just below the burnt layer (No.E:1). In chapter 4.1, I suggested a tentative date of EHIII:2 for the destruction layer found at this site. This means that the two axes which were found under the burnt layer have a *terminus ante quem* date of EHIII:2. Consequently they become somewhat older than the ones found at Lerna IV:C-D and possibly also the earliest ones found in the Peloponnese.

One shaft-hole hammer-axe was found at Pylos in Messenia (No.F:1) in the upper layers in the Deriziotis property. I have tentatively dated the apsidal house walls at the site to EHII, but such an early date for the shaft-hole hammer-axe seems unlikely. The strata are admittedly much disturbed and MH and EHII pottery was found mixed in the different layers. As the site lacks EHIII material I suggest a MH date for this shaft-hole hammer-axe.

Banks adopted the excavator Valmin's dating of one shaft-hole hammer-axe found at Malthi in Messenia, and consequently suggested that it probably should be dated to the EHIII period (1967, 108-109). However, there does not seem to be any pottery at Malthi which can be dated prior to the MH period;[26] consequently a MH date is more probable for this shaft-hole hammer-axe. Such a date was also proposed by Sakellariou (1980, 128). At least nine other examples of shaft-hole hammer-axes of

stone were found at the site and were dated to the MH period by the excavator (Valmin 1938, 346-347, pl.26A:1-2, 4-6; B:1-2, 4-6).

One shaft-hole hammer-axe of stone was recorded as a surface find at Leuktras in Messenia (Hope Simpson 1957, 234, pl.50d:c). An EH date is unlikely for this example as no pottery of such an early date has been found at this site (see Hope Simpson and Dickinson 1979, 166).

A fragmentary shaft-hole hammer-axe made of dark greenstone was found at Ayios Stephanos in Laconia (No.G:1). Taylour recorded this axe as EH/MH? in date, but I consider a MH date for the axe as quite certain for reasons presented in the catalogue. Two other shaft-hole hammer-axes from Laconia were found in a survey at Palaiopyrgi on the Spartan plain (Waterhouse and Hope Simpson 1960, 80 fig.6:12, pl.23c:7). It is interesting to note that all the identifiable pottery at this site is EHII in date (Waterhouse and Hope Simpson 1960, 78). Still, it would be to draw too far-reaching conclusions to say that also the shaft-hole hammer-axes from this site were of EHII date; they were found on the surface, completely out of context and an EHII date would make them the oldest ever found in the Peloponnese.

Wünsche mentions in a note that shaft-hole hammer-axes were found at Kolonna on Aigina (No.H:5), but he does not say anything about their date or find context, which unfortunately excludes them from further discussion. A fragmentary shaft-hole tool was also found at Lithares (No.i:5). This fragment is possibly the slightly rounded peen part of a hammer-axe, even though the object was said in the excavation report to be a "skull crusher" of marble. The exact find context of this stone object is unknown, but we know that the upper two floor levels of the settlement are of EHII date and that some EHIII pottery also has been found at the site. Consequently I would like to suggest a *terminus post quem* date of EHII for the presumed shaft-hole hammer-axe at Lithares.

Two complete and many more fragmentary shaft-hole hammer-axes were found by Goldman at Eutresis in Boiotia (No.i:7). She has dated all of them to the MH period (1931, 206-208, fig.278:7-8, 279), which means that they appeared after the destruction of the site, which occurred at the end of the EHIII period.

One possible shaft-hole hammer-axe, where only the rounded end was found, comes from a definite EHII context at Manika on Euboia (No.J:1).

26. There seems to be a consensus among scholars today that the earliest occupational levels at Malthi should be dated to the MH period and not EHII-III as originally believed (see for instance Hope Simpson and Dickinson 1979, 174; Rutter 1979, 24 n.34 with further refs.).

In the catalogue the shaft-hole hammer-axes which were found at Kirrha in Phocis (No.K:5) were discussed in some detail. In my opinion some of these should be given an EHII date, but on one condition: that the excavators actually found them in each stratum as was said (no exact provenance is given for the one depicted in the excavation report). If we draw the conclusion that some actually are of EHII date, this automatically means that this type of tool preceded the destruction of this site.

In 1892-1901 French archaeologists excavating the so-called Pythian sanctuary at Delphi found three fragments of shaft-hole hammer-axes of stone which they dated to the "Aeneolithic" period (Perdrizet 1908, 1-2, fig.7). Sakellariou indicates that these possibly are of Neolithic date (1980, 128), whereas Lamb thought that the illustration of one of the axes was so inadequate that she hesitated to consider it a parallel to other shaft-hole hammer-axes at all (1936, 182 n.2). Nothing is said about the find context of these axes, which leaves the dating of them to the Chalcolithic/Final Neolithic (Aeneolithic) period quite uncertain. Some tentative conclusions might be drawn from the discussion so far (Fig.15).

1) Shaft-hole hammer-axes of stone which are securely dated to the EH period have been found at four sites within the study area, three in the Peloponnese and one in Phocis.[27]

2) At three sites, Lerna, Asine and Eutresis, shaft-hole hammer-axes were found after a destruction layer.

3) At one or two other sites, at Kirrha and probably also at Asea, the shaft-hole hammer-axes of stone apparently preceded the destruction layers.

No matter what the final judgement will be concerning the *origin* of shaft-hole hammer-axes, it has been shown beyond reasonable doubt by Hiller (1982b, 197-199) that this kind of implement was known and used earlier in Macedonia, Thessaly and in the NE Aegean than in southern Greece.[28] Besides, the earliest occurrences of this tool within the study area are found in the northernmost part, in Phocis and possibly in Boiotia. Still, the occurrences of shaft-hole hammer-axes of stone within the study

27. Thus Nordquist's statement that bored stone tools are found by the late EBA on almost every site on the mainland (1987, 41) cannot be substantiated, at least not by the published material.

area are too infrequent, I believe, to mean anything more than occasional contact between the north and the south.

5.4. Tumuli and intramural burials

The following section is a presentation of some data concerning the burial practices during the EHII-III and MH periods within the study area. The aim is to discern where, when and in what respect innovations are seen in this material, how these relate to eventual "destruction layers" and from where the possibly "new" influences might have come. I will look at the two features most commonly regarded as intrusive and indicative of a foreign influence, namely tumuli and intramural burials.

Tumuli

The introduction of tumuli in central and southern Greece towards the end of the Early Bronze Age has been seen as a foreign feature which entered Greece from the north (Platon 1981, 226; Hood 1986, 62) and has been associated by many scholars indirectly or directly with the "Kurgan tradition".[29] Even if this theory is widely held, others have been launched, for instance by Andronikos, who suggested that they originated in the Middle East (1961-62, 174 n.98). But tumuli are notably absent in the Cyclades (except one MH tumulus on Kea) and on Crete (Pelon 1976, 114-115). This fact probably excludes both the east and the south as possible entryways of this feature to the mainland.

Let us now look at the tumuli found within the study area (Fig.16), beginning with what might be the earliest, namely the ones at Thebes, Lerna and Olympia/the Altis. All three are what I have called a "ritual tumulus", i.e. a tumulus which was not used originally for a burial. A

28. Hiller's mapping of the EHII occurrences of shaft-hole hammer-axes of stone clearly shows the area in which they are found, i.e. Thessaly, Macedonia and the NE Aegean (1982a, 42-43, fig.1). Even if we might adjust one or two of his datings of the shaft-hole axes, they only become somewhat older than previously thought, e.g. an axe originally found at Rachmani and which is republished by Weisshaar is dated to late EHI-early EHII by him (1989, 69-73, pls.90:24, 145), but in Chapter 5.1 it can be seen that the dating of this axe probably should be even earlier, i.e. Final Neolithic, which is the date of House Q where it was found.

29. See for instance Crossland 1971, 870; Gimbutas 1973, 132-133; Hammond 1976, 110 n.50, 111-113, 117 map 21; and Pelon 1976, 450-452.

secure dating of the tumulus at Thebes is impossible to make, but a date somewhere within the EHII period is probable as indicated by the presence of a sauceboat (No.i:6). The cist which was found inside the tumulus at Thebes has almost unanimously been dated to a later period and does not concern us here. The well-known tumulus at Lerna (No.A:1) with a suggested *terminus post quem* date at the very end of EHII could feasibly be contemporary with the one at Thebes, and they resemble each other in size. They are, on the other hand, quite differently constructed. When we look at these two tumuli and their relationship to the presence of possible "destruction layers" it is quite clear that the tumulus at Lerna postdates the destruction of the "House of the Tiles", while the tumulus at Thebes possibly antedates the destruction of part of the Kadmeia at the end of the EHII period. The tumulus found in the Altis at Olympia is a close parallel to the one at Lerna, construction-wise and probably also in date (No.D:5). Recent excavations, made in 1988, have exposed a stone wall inside the tumulus which could mean that this tumulus had a similar function as the one in Lerna, i.e. that it was used as a "ritual tumulus". There are so far no indications that there is a "destruction layer" connected with this tumulus.

One burial tumulus (possibly two) of EHIII date was found in an area 400 meters north of the Altis, at the New Museum site (No.D:4). This tumulus is quite differently constructed, compared to the one in the Altis; and as we shall see later on in this section, the tumulus found at the New Museum site at Olympia finds its closest parallel in some of the so-called R-tumuli on Leucas. Six other burial tumuli found in Messenia, Attica and Phocis have been considered as among the earliest known in the study area, but the dates suggested by Müller are uncertain and vary between "EHIII?", "transitional EHIII/MH?", "EH/MH?" and "early MH" (1989, 17 fig.9, 20, 22, 36 (nos.1, 5, 8), 37 (no.40), 38 (nos.43, 49)).[30]

The uncertainty concerning the burial tumulus found at Papoulia in Messenia (No.F:2), is due to an ovoid jar which was found in the tumulus. I support a MH date for the jar and thereby also for the tumulus. The building sequence of the tumulus at Voidokoilia in Messenia (No.F:3) is very complex, but should be considered as MH in date. The destruction layer documented at Voidokoilia clearly precedes the tumulus. The tumulus at Peristeria/Koukirikou in Messenia has been dated in this study to an early phase of MH because of the Gray Minyan sherds found in the

30. In addition to these six tumuli there is possibly one of EH date at Argos in the Argolid, but it has just been mentioned in passing by Touchais and is not dated according to a subphase within the EH period (see Touchais 1980a, 596).

make-up of the tumulus (see Marinatos 1964, 92-93). Regarding the tumulus found at Athens, I do not believe that there is any reason to date it before the MH period, as the pottery is of MH date and the arrowheads, which have been used to show a possible EH connection, span in date from Neolithic to the end of the MH period and therefore are useless as dating tools (No.H:3). A likely date for the tumulus at Aphidna in Attica is also MH, as indicated by the presence in the tumulus of Matt-painted and Minyan sherds together with a Melian bowl (see Blackburn 1970, 194). The tumulus found at Drachmani in Phocis (No.K:3) should not be dated before the MH period either, because the only artefacts that might be earlier than MH are four gold rings, which could be heirlooms passed down through the centuries.

The six tumuli mentioned above have been used as burial mounds (none of them were associated with a destruction layer) and are spread geographically over a large area stretching from Messenia in the west, to Attica in the east and Phocis in the north. This is a symptomatic picture for the MH period, since it is the period when this feature has its maximum spread with at least 24 tumuli in the study area (Fig.16).[31]

We will proceed by considering whether regional or chronological groupings of the tumuli can be made on typological grounds, and whether such groups can point to any direction from where this feature possibly entered the study area. The result of such an analysis is meager, because the material is too limited and too heterogeneous to let us see anything but rather loose relationships in a couple of instances regarding, first, the "ritual tumuli" and secondly, tumuli used as burial mounds.

The tumuli at Lerna, Olympia/the Altis and Thebes are similar in that they are "ritual tumuli".[32] They might have this in common with one, possibly two, older tumuli which have been dated to the Late Neolithic period (Schachermeyr 1976, 111). One LN "ritual tumulus" was found at

31. For a more detailed discussion of these MH or MH/LH tumuli, see Müller 1989, 22-23. Note that neither Kea nor Leucas is included in our study area.

32. Åström has proposed that a tumulus of EHII date, of the type here called a "ritual tumulus", possibly was found at Dendra (1986, 93-94). His argument for such an interpretation was that a 4 m long and 1 m thick EHII layer of small stones and pebbles (in 10-12 courses) was seen as a slightly sloping line in the section (1986, fig.86). No tumulus in the study area has, to my knowledge, a layer of small stones similar to the hypothetical tumulus at Dendra; e.g. the tumulus at the New Museum site in Olympia had a nucleus of no more than 2-3 courses of river stones. The feature found by Åström might be a parallel phenomenon to the river-borne stone formations found by Protonotariou-Deilaki (1980b) at Argos (see Müller 1989, 23 n.108).

Ayia Sophia in Thessaly (Milojcic *et alii* 1976, 6-7), and another one was found near Chaeronea at Magoula Balomenou in northern Boiotia, but there is some uncertainty whether this is a tumulus or burial or both.[33] It is of special interest for us to notice that the LN tumulus excavated at Ayia Sophia in Thessaly is built on top of three successively constructed chambers and definitely was not used originally for a burial. Even if the size differs from the tumulus at Lerna, and at Ayia Sophia the tumulus seems to be only 6-8 m in diameter (Milojcic *et alii* 1976, pl.4:2), their functions of commemorating some architectural remains are ostentatiously similar. It is tempting to suggest that the "ritual tumulus" at Ayia Sophia in Thessaly should be regarded as the prototype for the three similar tumuli found at Lerna, Thebes and Olympia/the Altis.

Let me now consider the tumuli which are used for *burials* and look for possible entryways for this feature or influences from outside the study area. The tumulus found at the New Museum site at Olympia in Elis has been compared to some of the tumuli found on the island of Leucas off the west coast of central Greece. On Leucas, at a site near Steno on the Nidri plain, 24 out of 33 tumuli were excavated by Dörpfeld in the years between 1908-1913. This so-called R-necropolis contained about 62 burials of adults and children buried in mortuary chambers, pithoi, cists, or pits under tumuli made of rocks and earth on top of circular wall enclosures, which were 2.7 - 9.6 m in diameter (Dörpfeld 1927, 217-250, 286-309).

The dates proposed for the oldest tumuli in this necropolis vary between EHII and EHIII[34]. There seems to be no reason to argue against the tentative dates proposed recently by Müller (7 final EHII?, 2 trans. EHII/III?, 7 EHIII? and 15 EH?) for the R-tumuli on Leucas[35] (1989, 39 no.60). The earliest tumuli on Leucas, dated to somewhere in EHII, could possibly have inspired the tumulus builders during EHIII at the New

33. Milojcic *et alii* (1976, 6) and Sakellariou (1980, 93-94) have interpreted this mound as a "ritual tumulus" originally without a burial, comparable to the tumulus found at Ayia Sophia further north. The excavators Sotiriades (1905, 120-122) and Hammond (1972, 262 n.14) have both interpreted it as a burial tumulus, while for instance Wace and Thompson (1912, 197-199) and Treuil (1983, 429 - besides dating the burial to the Middle Neolithic period) consider it to be an ordinary burial in a settlement mound. I support the last interpretation, accepting Wace and Thompson's objections (1912, 197) regarding the large amount of household utensils found in the so-called "tumulus".

34. While Sakellariou (1980, 98, 150) and Hood (1986, 53-54,58) suggest a date in EHIII, most scholars propose EHII, e.g. Hammond (1972, 245 n.4, 246; 1976, 126 n.89), Branigan (1975, 38), Renfrew (1972, 110, 381), McGeehan-Liritzis (1983, 162, 164 table 6, 165, 177 n.14) and most recently Müller who gives a date late in EHII, tangential to EHIII for the earliest tumuli (1989, 15).

Museum site at Olympia. Several comparable elements exist between the two: their dimensions, their partly cremated skeletons, their central pyres, and their pithos-burials.[36]

Can we possibly pursue this influence further northwards? In Albania most tumuli are dated to the MH period except in two cases, the central tumulus at Barçi which is dated to a transitional EHII/III period (Müller 1989, 6 n.18) and the three excavated tumuli at Pazhok, which are dated to EHII (Hammond 1976, 110-111, pl.6:b). The largest tumulus at Pazhok has furthermore been compared to burial R26C at Leucas (Hammond 1976, 111, 114). Comparable elements are: the roofed mortuary chamber dug below the ground, lined with cobbles and containing two inhumations or more, mixed with animal bones from a sacrifice. On the other hand, the central pit at Pazhok is circular while there are no such pits among the R-tumuli on Leucas, and there was no wall enclosure around the central burial chamber at Pazhok as in the R-tumuli on Leucas. The periphery was marked only by a circle of stones at Pazhok (Hammond 1967, 79).

Müller suggested, in passing, that a trade route by sea linked the Ionian islands with the west coast of the Peloponnese and the Albanian and Dalmatian coasts. This would account for the early tumuli found in Elis, Leucas and Albania and the early appearance of Finely Incised and/or Impressed ware in Elis, on Ithaca and in Dalmatia[37] (Müller 1989, 18). The main drawback of this theory is, as already mentioned, the apparent absence of this particular ware in most of Albania (see Maran 1987, 78 fig.1, 84 n.37). The suggestion that influences from the area of the "Kurgan tradition" are reflected in the tumuli seems unlikely as the common denominator in the EH and MH tumuli is the pithos-burial, which has never been found in tumuli of the "Kurgan tradition".[38]

35. The presence of fruitstands with fenestrated stems, which were the most common pottery shape in the R-necropolis, was thought to be exclusive for Leucas by Müller (1989, 11-12). She suggested that parallel examples were found in the "Sopot-Lengyel culture" in the NW Balkans, but admitted that these were too far removed geographically to be thought of as comparative (Müller 1989, 12 nn.47-51). This connection seems even less likely now that we know of similar vessels all over the Peloponnese and in Boiotia dating from Middle-Late Neolithic and EHI-II times (see Zachos 1987, 185-190; Weisshaar 1990, 19-20, pl.24:8).

36. Hood has suggested that pithos burials were a new burial practice during the EHIII period (1986, 61), but this is not corroborated by our findings.

37. Maran has mentioned that parallels to the tumuli found on Leucas also are being found in Dalmatia (1987, 82 n.49). This adds more weight to Müller's theory. The references used by Maran (1987, 81 n.37, 82 n.49) have not been available to the present author.

When we look just to the north of the study area for possible influences, there is a questionable LN burial found at Servia in Macedonia (Heurtley 1939, 54-55), which has been described as a tumulus burial by Hammond (1972, 243-245; 1976, 126 n.89). But the presence of a tumulus is only surmised by Hammond and it can never be shown to have existed in reality (Pelon 1976, 114 n.7). Thus the burial at Servia together with the problematic tumulus/burial at Magoula Balomenou/Chaeronea, which have both been used as evidence of a northern penetration of burial tumuli into central and southern Greece (Hammond 1973a, 24), cannot be used to support such a theory. Some tentative conclusions about the EH tumuli are:

1) We cannot see a relationship between the "destruction layers" at the end of the EHII period and the appearance of EH tumuli, except at Lerna.

2) The few sporadic and geographically widespread occurrences of EH tumuli cannot be used to support the theory that this feature entered Greece with immigrating people from the north.

3) There is a possibility, however, that the west coast of the Peloponnese was influenced by the NW, i.e. Albania and Dalmatia, via the Ionian islands. More published material is needed about the Albanian and Dalmatian tumuli before we can see if there is a connection or not.

Intramural burials

The intramural burials have also been seen as an "intrusive" feature coming to the Peloponnese from abroad with new population elements in EHIII and again in MH (Angel 1971, 104-105), possibly from the Balkans[39] (Sakellariou 1980, 115) or from Anatolia (Angel 1971, 30, 105). Caskey believed that these intramural burials reflected new living conditions, especially during MH (1960, 299, 303; 1973, 99). The few EHIII occurrences of intramural burials were considered to have been used probably exclusively for infants and children (Caskey 1986, 14).

I will now proceed by mentioning the intramural burials found within the study area starting, as in the case of the tumuli, with the earliest ones

38. The observation that pithos burials are lacking in the Kurgan area has previously been made by Hiller (1982b, 194) and Korres (1990, 7 n.46).

39. Where this feature has been seen as an ingredient in the Baden culture (Howell 1973, 92, 95).

of EH date (Fig.17). Since Caskey held his lecture about the end of the EBA in the Aegean at the University of Cincinnati in 1979 (1986, 9-26), the picture has changed somewhat regarding the dating of the earliest intramural burials found in the study area. At least four, and possibly as many as thirteen, of the earliest burials, now dated to the EHII period, are used for adults, which seems to invalidate Caskey's theory according to which EH intramural burials were reserved for children.

The woman's burial found at Tiryns seems quite clearly to be intramural as the skeleton was cut into an EH housewall. Kilian's dating of the burial to EHII is, however, not substantiated with any details and therefore it should be regarded with some caution (No.A:2). The adult intramural burial found at Thebes was found below the floor of a room of EHII date (No.i:6). Human bones have also been found in a fragmentary pithos at Strephi in Elis. As this burial was found in an area which was ca. 8 m away from a rich EHII deposit where also an EH wall had been found, it has been considered as intramural in the present study (No.D:3). The stratigraphical evidence for this being an intramural burial is however weak, as Koumouzelis lacked section drawings and only could recreate the excavation work through the daybooks and written annotations on boxes of find material. Another possible pithos burial was found at the bottom of a bothros near House V and this should more clearly be considered as intramural, on one condition: that it really is a burial. We should therefore consider these intramural burials at Strephi, together with the one found at Tiryns, as only *tentatively* dated to the EHII period.

However at Ayios Stephanos in Laconia (No.G:1), at least two, possibly as many as eight, adult intramural burials have been documented and another adult intramural EHII grave was found at Kouphovouno (No.G:2). At this latter site two additional intramural burials might have been recovered, one containing an adult and the other one used for a child burial. The evidence from these two Laconian sites makes it more convincing to conclude, despite the two uncertain examples at Strephi and Tiryns, that intramural burials were *not* reserved for children during the EH period.

In sum, at least 13, maybe as many as 37, intramural burials of adults and children alike are dated to the EHII period and they have been found at Asine, Tsoungiza, Ayios Stephanos, Kouphovouno, Askitario, Thebes, Kirrha, and possibly also at Tiryns, Strephi and Eutresis (Fig.17).[40] All these early burials make it untenable to hold on to the theory according to which the custom of burying the dead intramurally was introduced to Greece by newcomers during the EHIII period.

It is actually only at Lerna (No.A:1) that the intramural burials have been found as a "new feature" after a destruction layer, and it has been suggested that burials of adults within the settlement may not have been common until Lerna VB or later, i.e. well into the MH period (Zerner 1978, 195). The only other EHIII occurrences of intramural graves are in the Altis at Olympia (No.D:4), at Ayia Marina in Phocis (No.K:2) and possibly at Teichos Dymaion in Achaia (No.C:2), but in none of these instances do they follow after a destruction layer. On the contrary, the problematic burial at Teichos Dymaion probably predates a destruction layer between EHIII/MH at the site.

One result of our review of the EH intramural burials is that nine, out of a total of seventeen, such burials dated to the EHIII period have been found at Lerna, which makes it understandable, but nevertheless a mistake, that Caskey and Angel saw this as a "new" feature being introduced to Greece by a new population element at the beginning of EHIII. When we look at the amount of intramural burials found during the MH period, it is apparent that this was the period of their maximum spread, with about 590 tombs out of a total of 810 MH tombs found in the study area (Fig.17; the MH figures are based mainly on Blackburn 1970 and Konsola 1981, 113-115).

We must remember that chance of discovery has been and continues to be an important factor which should be kept in mind when looking at the tomb material. This fact makes our conclusions of a speculative, or at best tentative, nature. Statistically the material is extremely limited, which renders our conclusions susceptible to change once more EH and MH tombs are discovered, and this is especially true for the EHIII period from which very few tombs are found at all.

In a few instances EHII tombs have been found by chance without a settlement site being found at the same time. These tombs are presumably extramural and are therefore counted in the "extramural" column (Fig.17). The tombs in question have been found at Kalamaki (No.B:9) and Isthmia (No.B:10) in Corinthia, and at Elis (No.D:1) in Elis.[41]

The overall conclusions about this so-called "new" burial custom are:

40. The 20 or 30 individuals found in a well at Cheliotoumylos, also dated to the EHII period, could very well be called intramural burials, but as it is not a tomb *per se*, it is not considered further (see No.B:4). The same is true for the adult skeleton found by Säflund at Berbati (see No.A:6).

1) Intramural burials do not seem to be connected with any "destruction layers" at the end of the EH period (EHII or EHIII), except possibly at Lerna.

2) There seems to be a continuity from EHII, through EHIII, to the MH period regarding this feature.

3) Intramural burials were not used exclusively for children during the EHII period.

4) Is it not possible that the gap between the Final Neolithic occurrences of intramural burials (10 such tombs were found at Lerna by Caskey 1986, 13), and the EHII occurrences of this feature will be closed once more EHI settlements and tombs have been found?

41. For completeness' sake I will add the cases where tombs of EH date, but of unknown subphase, have been found and for which we cannot decide whether they are extramural or intramural. Such tombs have been recorded in Attica at: Athens (No.H:3), Agriliki/Vrana (Orlandos 1972, 5-6 fig.2), Eleusis (Pachiyanni-Kaloudi 1979, 42), Alyki/Glyfada (Pullen 1985, 129), Markopoulo/Kovatsi (Pullen 1985, 129-130), Sounion (Pullen 1985, 130), Koropi (No.H:13), Nea Makri (No.H:10), Porto Raphti and Makronissos (Pullen 1985, 131) and finally Chalandri (Pullen 1985, 132). On Euboia similar indications of EH tombs have been recorded at Makrykapa (Pullen 1985, 140) and in Boiotia at: Likeri (Pullen 1985, 134-135), Hypaton (No.i:4), Kesseri (Pullen 1985, 136), Lithares (No.i:5), Paralimni (Pullen 1985, 136) and Orchomenos (Faraklas 1969, 179). In Laconia an EH cemetery was found at Pavlopetri (Pullen 1985, 150). In Messenia, finally, EH tombs have been found near Glikorizi (Pullen 1985, 150) and Lambaina (No.F:5).

6. Possible changes of environment and population

The purpose of the first part of this chapter is to illuminate possible changes documented in the environment during the EHII-EHIII-MH period by drawing on different strands of data, in this case of botanical, geomorphological[1] and faunal character.

Botanical data

There are two basic categories of archaeobotanical information, namely pollen grains and so-called macrobotanical remains, e.g. plant seeds, nuts or charcoal. I will begin by discussing pollen data pertinent to our inquiry about the end of the EH period. Pollen data from southern and east-central Greece are at least as exclusive as the presence of perennial lakes or wetlands, in which pollen can be preserved in this area. It is known that pollen diagrams typically show continuous fluctuations in most species, and this was ascribed by Harding to either human activities or climatic changes (1982, 8).

Pollen diagrams have been published from three main regions within the study area: from two locations adjacent to each other near Pylos in Messenia (the Osmanaga lagoon and the Bay of Navarino), from Lake Thermisia, which is a salt lagoon along the southern coast of the Hermionid in southern Argolid, and finally from Lake Kopais in Boiotia. The pollen diagram from the Osmanaga lagoon is said to start about 2000 B.C., at which time it contained a high percentage of pine pollen, which soon afterwards however decreased in number. The reason for this decline was explained by Wright as due to forest clearance during the MH period, or early LH period, presumably because there had been a need either of wood or of more agricultural land (1972, 193-195). Later on, Wright spoke of "major Late Bronze Age activity" (1985, 186) being responsible for the decline in pine forests.

Incidentally Bell has used exactly the same pollen data recovered at the Osmanaga lagoon as evidence that a climatic change, supposedly to a

1. Geomorphology deals with several different subjects, e.g. geology, sedimentology and soil science, and is increasingly used to analyze prehistoric environments in connection with archaeological projects.

drier climate, had occurred in Greece, but at a much earlier stage, namely at the end of the EHII period, thereby being responsible for the subsequent decline during the EHIII period in Greece. She admitted that the date of about 2000 B.C. was a little late, but referred to Wright himself as saying that the dating was quite uncertain (1971, 1-2, 5-6). Deeper pollen cores, complementary to the ones taken previously by Wright, were dated to about 7500-4700 B.C. and collected at the Bay of Navarino, adjacent to the Osmanaga lagoon, by Kraft, Rapp and Aschenbrenner (1980). As these dates extend far beyond the alleged forest clearance, this core does not throw any light on the controversial dating of the hypothetical deforestation deduced by Wright from his Messenian data.

A core more than five meters deep taken in the Thermisi lagoon in the southern Argolid in 1971 has indicated that this area, around 2500-2300 B.C. (EHII), consisted of a mixed oak forest with some pine, linden, elm and holly trees, indicating either a moister/cooler climate than at present or that the land was less intensively used than now (Sheehan and Whitehead 1981, 699-701, 707). Very low pollen concentrations were found in the subsequent period (ca. 2300-1800 B.C.) and Sheehan and Whitehead give several plausible explanations to why this is so, e.g. that an increased land clearance would increase the rate of sedimentation and consequently dilute the pollen in the lagoon or that sea level change; alternatively tectonic activities may have changed the water level in the lagoon and thus exposed the sediments to oxidation (1981, 702). The lack of sedimentological studies in the lagoon prevent a definite answer to this problem, but it is hoped that once such studies are made the data from southern Argolid may complement the geomorphological data from the Argive plain which is presented further below.

I will now move geographically from the Peloponnese to central Greece, where an initial collecting and discussion of pollen data from Lake Kopais in Boiotia was made by Greig and Turner (1974, 186-193). The only datable sample came from the boundary between two pollen zones, indicating a decrease from moderate to low levels of oak pollen around 5205 $\pm$ 120 BP,[2] i.e. during the Final Neolithic period (Greig and Turner 1974, 190). To Greig and Turner the changes in oak pollen levels suggested that a substantial forest clearance or deforestation had taken place at least at the onset of the Bronze Age, maybe earlier. They saw population growth as the reason behind this clearance, and thought that the dry climate prevented the forest from re-growing (1974, 190-191).

2. Corresponding to an uncalibrated date of about 3255 b.c. (Rackham 1983, 339).

An opposite view from the one presented above is given by Rackham. He suggested that the decline in oak pollen seen in the sample from Lake Kopais was not actually matched by a real drop in the amount of oaks; it could instead be explained by a sudden increase of grass pollen, which consequently diminished the percentage of oak pollen in the sample. The increase in grass pollen was in turn ascribed to a change in the behaviour of the lake itself and several natural explanations were suggested, e.g. less snowfall in the mountains. Overall, Rackham seems to believe in climatic changes or other natural causes, rather than in manipulations induced by man, when it comes to explaining changes in the prehistoric vegetation. In the case of Boiotia he presumed that the changes in the vegetation had occurred before the Neolithic period (Rackham 1983, 339-346).

Moving away from palynology to macrobotanical data, we will now see what this type of material can tell us concerning the end of the EH period. Such evidence is available from two sites in the Argolid, Lerna and Tiryns. Around 4000 specimens of vegetable matter from Lerna were analyzed statistically by Hopf (1962, 1-19). Barley was present from Neolithic through MH times; though sparse in Lerna II-III, it was very common in Lerna IV. Lentils and peas were quite common in Lerna II-III, but disappeared in Lerna IV. The same is true of the figs which were present in Lerna II-III, but then disappeared after that. Grapes appeared in abundance during Lerna IV-V. Even if the vine, together with barley, was introduced to Greece much earlier[3], the statistical increase of both barley and vine is apparent during the EHIII period (see table in Hopf 1962, 4). Hopf concluded that lentils and peas were replaced by barley after the EHII period and that figs were replaced by grapes at the same time. She supposed that the immigrants in EHIII were responsible for the dramatic increase in vines at Lerna and that they, as shown by Caskey and Heath, came via the Cyclades from Asia Minor (Hopf 1962, 1-19).

At Tiryns more than 8000 vegetable remains were analyzed by Kroll, but only a handful of these could be dated to EHII or EHIII and none to the MH period. Two carbonized barley seeds were dated to the EHII, but none to EHIII. A fair amount of EH figs were found (107 of EHII date and 22 of EHIII) and some grape seeds (17 of EHII date and 2 of EHIII). Finally, one olive stone dated to the EHII period was also recorded by Kroll (1982, 467, 470-471 table 1). This collection deviates somewhat, compared to the

3. The introduction of both barley and vines from Asia Minor to Greece had occurred at least during Lerna II-III (Hopf 1962, 4, 6, 15, 19) and recent experiments on charred grape seeds from Lerna have conclusively shown that the domestication of the vine could very well have occurred before the EH period even began (Smith and Jones 1990, 324-326).

one presented from Lerna. Vines did not replace figs during EHIII at Tiryns as both were found during the EHII-III period. Barley, which was abundant during the EHIII period at Lerna, disappeared after EHII at Tiryns. These differences between the botanical data from Tiryns and Lerna amply show that we must be very careful when interpreting this type of data. It seems that Caskey was aware of the discrepancies between Lerna and Tiryns, because he warned that Hopf's conclusions should not be considered conclusive as the standard of collecting vegetable matter in the 1950s had been rather primitive (1986, 16).

Geomorphological data

Geomorphological data from the southern Argolid survey were published for the first time in an analysis of landscape stability and destabilization by van Andel, Runnels and Pope (1986, 103-128). Initially they disapproved of the general theory of Vita-Finzi who had postulated a two-phase alluviation[4] sequence (the Older and the Younger Fill) in the Mediterranean Basin during the late Quaternary (van Andel, Runnels and Pope 1986, 103-105).[5] In its place a sevenfold alluviation scheme was suggested for the southern Argolid, of which only the so-called Pikrodafni alluvium is of concern in this study. The Pikrodafni deposits are dominated by debris flows, caused by sheet erosion of slopes, which through their sherd content have been dated to the EHII period.[6] A unit analogous to the Pikrodafni alluvium was found in the Argive plain[7] which had EHII material within and EHIII material on top (van Andel, Runnels and Pope 1986, 108-109, 112-113).

Plausible causes behind the deposition of debris flows in general have been enumerated by van Andel, Runnels and Pope (1986). If for instance the climate changes and becomes drier, this leads to a reduction in the plant cover which normally protects the slopes from erosion. Other causes which could have the same deteriorating effect on the slopes are fires, land clearance or a few years of exceptional summer rains (1986, 111, 116). However, behind the Pikrodafni alluvium they saw intensified land use

4. By alluviation is meant that sediment has been laid down by running water.

5. For earlier criticism of Vita-Finzi's theory see van Andel and Runnels (1987, 197).

6. It is now known that the Pikrodafni alluvium can be dated to the later phases of EHII (i.e. Lerna III:C-D); see Pullen (1992, 47-48).

7. This unit has been described summarily by Zangger (in van Andel, Zangger and Demitrack 1990, 383-385).

due to an increased settlement density. The soil erosion which such a population increase started could, in their opinion, have been spurred by a shortened fallow or by a rapid clearance of steep, marginal soils,[8] but it is noteworthy that they end their paper by saying that they might have underestimated climatic change when explaining the soil erosion.[9] They did not consider this soil erosion to be the factor behind the subsequent decline during EHIII because, as they said, "political or economical disturbances were widespread at this time in the whole Aegean region"; moreover, for millennia, substantial areas with good deep soils remained intact in the Hermionid (1986, 113-115 fig.8, 125-126).

Finally let me mention Zangger's work in reconstructing the prehistoric environment of the Argive plain (in van Andel, Zangger and Demitrack 1990, 383-386; 1991b, 1-15). By analyzing and combining topographic and stratigraphical data, Zangger has been able to reconstruct the extent and history of a large freshwater lagoon, Lake Lerna, roughly halfway between Argos and Lerna. This lake had its largest extent during the EHI period when it reached a diameter of almost 5 km. Subsequent alluvium filled the lake during the EHII period, dated by its content of EHII sherds. This regression of Lake Lerna was caused by a period of major soil erosion, which also Zangger believed was induced by man (1991b, 1-2, 7-13). The silting of Lake Lerna, securely dated to the EHII period, complements and supports the previously discussed Pikrodafni alluvium in southern Argolid.

Faunal data

Leaving the pertinent botanical and geomorphological data behind, I will mention what little is known about possible faunal changes toward the end of the EH period. As usual, the only detailed study presented so far deals with material from Lerna in Argolis (Gejvall 1969). Gejvall mentioned that a notable increase was apparent from the beginning of EHIII in the amount of cattle, dogs, pigs and sheep/goats found at the site. A similar increase was seen in the number of game animals, e.g. red deer and

8. They have in this instance adopted a theory conceived originally by Boserup and which was used by Renfrew in his analysis of Melos (1982, 268-274).

9. Thus, they seem to fall into the trap of using physical explanations after all (see warning in Butzer 1982, 37, 39). Similarly Rackham concluded that the effects of a changing climate on the vegetation has to be studied in more detail before we can explain in full how environments change (1982, 194-195; 1983, 343-346).

hares. A change in avian fauna also occurred at the beginning of Lerna IV when partridges, pigeons, ravens and crows appeared, apart from swimming birds of the previous period. This change suggested to Gejvall an environmental change between EHII/III, as birds confined to drier soils were present from now on (1969, 36-37, 55-56, 58-59).

In sum, we might conclude that several different types of data seem to suggest that the environment did indeed change during the EHII period, but as to the reason behind this deterioration the explanations diverge. It is known that changes over a longer period to a drier or wetter climate can be comparable to sudden dramatic events such as floods or drought (Harding 1982, 4-6). Both drier climate (by Gejvall) and drought (by Bell) have been suggested to explain the decline after EHII.

Temporary shifts in the rainfall pattern, with exceptional summer rains as the result, cannot be seen in the geological evidence, but have been used as one possible explanation, of many, for the type of soil erosion which took place during the EHII period in several parts of the Argolid. When we look at the individual sites included in the Catalogue with the aim at finding evidence of sudden floods (not only in the Argolid), we can deduce the following. At Tiryns (No.A:2) a 0.6 m sterile layer was found in area H in the Lower Town between EHII and EHIII strata. Verdelis suggested that this was due to flooding of the area. In a deep trench excavated in 1987, SW of the citadel at Tiryns, were a couple of stream deposits of EH date, apparently above an EHII site, identified by Zangger (1991a, 837). Strephi in Elis (No.D:3) was probably flooded at the end of EHII:D by the river Kytherios as evidenced by a 0.15-0.6 m thick layer of pebbles found at the site. Akovitika in Messenia (No.F:4) was likewise thought to have been flooded, but this time the evidence is circumstantial in the extreme (the site was abandoned at the end of EHII:D and the river Aris flows nearby). The same is true for Rouf in Attica (No.H:3), which supposedly was abandoned towards the end of EHII, posibly due to the flooding of Kefissou.

Finally, I will mention a totally different set of data, which point to an environmental change between EHII/III and which emanate from Rutter's analysis of Pattern-painted pottery of EHIII date (1988, 73-89). He suggested in this paper that the Dark-on-Light pottery made in the Peloponnese during EHIII might be connected with a decreased degree of sedentism, possibly induced by environmental changes (1988, 85-86).

Possible signs of a population influx seen in the skeletal material

Osteological or palaeoanthropological data, indicating a possible population influx into the study area toward the end of the EH period, are extremely rare because hardly any tombs containing skeletal material have been found from this period. Still, in 1980 Xirotiris presented the results from a computer-assisted multivariate analysis of craniometric data from a limited group of EH and MH skeletons from the Greek mainland and the Cyclades. In this paper he reached the conclusion that the morphological homogeneity seen in the skeletal material between the EH and the MH group seemed to disprove any foreign influx between these two periods. However, some individuals from Ayios Kosmas differed strongly from individuals from MH Asine. This difference was explained by Xirotiris as due to the two sites' character of being harbours, where it supposedly was quite natural that such a variability in the population existed (1980, 201-209).

Another multivariate analysis of craniometric data reaching more or less the same conclusions as Xirotiris and probably in part using the same data (from Ayios Kosmas) was published in 1981 by Musgrave and Evans (1981, 50-107). The mainland Greek data used were culled from Angel's publications, i.e. 23 crania from EH Ayios Kosmas, 57 crania from MH Lerna and 20 crania from MH Mycenae. Musgrave and Evans concluded that "these Bronze Age Greeks from Attica and the Argolid belonged to a single, homogeneous population" (1981, 75, 89). Consequently this material seems to suggest that there was no population influx in Attica and Argolis between the EHII, which is the date of the material from Ayios Kosmas, and the MH period.

7. Conclusions

The aim of this study has been to scrutinize the archaeological evidence from which Caskey inferred that an invasion of the Greek mainland by foreigners had occurred at the end of the EHII period with an assumed "second wave" at the end of the EHIII period. The result is a synthesis of scattered information gathered and organized from our primary sources in the form of excavation reports, whose quality usually leaves much to be desired. In one sense this work has been premature, as the crucial material from key sites such as Lerna in the Argolid and Lefkandi on Euboia remains largely unpublished. Nevertheless some tentative answers to the questions raised at the beginning of this monograph will now be given.

Before trying to answer the question whether the alleged destruction layers are synchronous at the end of EHII, or at the end of EHIII, or not, I set out to inquire about the excavators' usage of the term "destruction" or "destruction layer" in order to get an idea of how they have defined this term. In other words, what is the tangible evidence behind calling a site destroyed? The result of this inquiry was that the evidence is frequently altogether lacking, so that we have no means of verifying that a site actually was destroyed (as is the case with e.g. Synoro in the Argolid and Perachora/Vouliagmeni in Corinthia). On several occasions we know the dimension of the excavated trench(es), possibly even the thickness of the destruction layers found in these trenches. When this was taken in conjunction with a subsequent abandonment of the site, the excavators inferred that the entire site was destroyed (as is the case with e.g. Tsoungiza in Corinthia and Ayios Dhimitrios in Elis).

At Asine in Argolis and Korakou in Corinthia the excavators have said that a destruction layer was found whenever MH material was found superimposed on EH material, from which they drew the conclusion that the entire site was destroyed. But in these two instances it has not been possible to figure out the total extent of the destruction layers. Occasionally a destruction layer is said to have been exposed over the entire excavated area which it has been possible to estimate, e.g. at Zygouries in Corinthia and at Voidokoilia in Messenia. There are admittedly also cases where a substantial destruction layer has been documented, from which we can conclude quite certainly that the entire site was destroyed, e.g. at Lerna in Argolis and Eutresis in Boiotia. In sum, the definition of the word "destruction" and the tangible evidence of these destructions vary considerably.

Now returning to the question whether or not the "destructions" are synchronous at the end of the EHII period or at the end of EHIII,, we have seen that Caskey at one stage remarked that it was only with "an heroic stretch of the imagination" (1971, 786) that one could picture the alleged invasion to have occurred over a longer period of time and not more or less synchronously. Later he softened this view and accepted that absolute uniformity was not to be expected. Nevertheless the hypothesis of a contemporary horizon of destructions, especially at the end of the EHII period, seems to have influenced several excavators who, without supplying much concrete evidence, have tied the presence of an ash-layer to Caskey's "horizon of EHII destructions". It is possible that such an influence can be seen in the preliminary reports from e.g. the "Oberburg" and the old excavations in the "Unterburg" at Tiryns, Synoro in Argolis and Perachora/Vouliagmeni in Corinthia.

Synoro in Argolis is principally interesting because, when it was possible to correlate the pottery from this site with that from Lerna, it turned out that the latest EHII pottery found was of EHII:B date. This means that, if the site really was destroyed, it was destroyed long before Caskey's inferred horizon of destructions at the end of the EHII:D period. Through Synoro I have touched upon an essential problem regarding the documentation of the "destructions" within the study area, namely the dating of these. I have ended up with two sets of incommensurable chronological data, meaning "destructions" which are correlated, sometimes very tentatively, with the stratigraphy at Lerna, and those which are not.

Initially, when applying rather strict criteria for when to consider a site "destroyed", meaning that the extent can be estimated and is fairly substantial, or that the "destruction layer" can be coupled with a subsequent period of abandonment, and considering only those which can be correlated with Lerna, I reached the following results.

Four, possibly six, settlements seem to have been destroyed by fire during EHII:D (Lerna III:D), which is the last subphase of the EHII period; these sites are Lerna and Tiryns (the new "Unterburg") in Argolis, Ayios Dhimitrios in Elis, Ayios Kosmas in Attica, probably also Voidokoilia in Messenia and Thebes in Boiotia. One or two Corinthian sites, definitely Tsoungiza and possibly also Zygouries, constitute interesting deviations from the previous group of sites in that they were destroyed during EHII:C (Lerna III:C). Two, possibly three, settlements were destroyed during EHIII:3 (Lerna IV:3), which is the last subphase of the EHIII period; these were Berbati in Argolis, Kolonna on Aigina and probably Tsoungiza in Corinthia. As in the case of the EHII destructions, we have also during

the EHIII period indications of destructions which deviate in date from the EHIII:3 "group". At Tiryns (the new "Unterburg") the settlement of EHIII:1 (Lerna IV:1) date was destroyed, while I have dated the destruction layers found at Korakou in Corinthia and Asea in Arcadia, in a very tentative manner, to EHIII:2 (Lerna IV:2).

Let me now forego the strict criteria applied to the "destructions" discussed until this point, and consider also those for which the extent cannot be estimated, even though they might be correlated with the stratigraphy at Lerna, or, conversely, where the destruction is fairly substantial but the material cannot yet be correlated with Lerna's stratigraphy. First of all, Aigion in Achaia and Strephi in Elis might be added to the two Corinthian sites, Zygouries and Tsoungiza, which were destroyed during EHII:C. Asine, with a tentative date for the destruction set sometime during EHII:C-D, could belong to either group. A second destruction layer documented at Aigion in Achaia is tentatively dated to the EHII:D period, while an elusive destruction layer found at the New Museum site at Olympia in Elis has been correlated with an EHIII:1-2 date (Lerna IV:1-2). Thus it might correspond in date with the destruction layer found in the new "Unterburg" at Tiryns, or with the tentatively dated destructions of Korakou in Corinthia and Asea in Arcadia.

Fairly substantial destruction layers, but where the material has not yet been correlated with the stratigraphy at Lerna, are documented at Kirrha in Phocis, said to have occurred at the end of EHII, and at the Boiotian site Eutresis at the end of the EHIII period. Less certain instances of "destroyed" sites exist, where neither extent nor a more precise date can be given, and these expand considerably the group of potentially destroyed settlements during EHII or EHIII. It should be noted that several sites have numerous destruction layers and, drawing on the example set by Synoro, where an "end" EHII date was changed to EHII:B once the material was correlated with Lerna's, all sites which are said to have been destroyed at the "end" of either EHII or EHIII are counted as one potentially destroyed site in each subphase of that particular period. When counting in this manner we get the following numbers, where the numbers within parentheses indicate the maximum potentially destroyed

sites: 4-6(10) EHII:D[1], 1-2(8) EHII:C[2], 0-1(6) EHII:B[3], 0(4) EHII:A[4] and 2-3(7) EHIII:3[5], 2-3(7) EHIII:2[6], 1-2(6) EHIII:1[7].

It is quite clear from the overview presented above that settlement sites spread out over the entire study area (except in Laconia and on Euboia) now and then were destroyed on different occasions during the EHII and EHIII periods, and that the destructions at the end of the EHII period, or the EHIII period, did not occur synchronously. Even within the same region of Argolis, settlements were destroyed at different times ranging in date from early EHII:B to EHII:C-D, EHIII:1 or EHIII:3. Thus, "destroyed" sites seem to be a common phenomenon occurring repeatedly throughout the EHII and EHIII periods. However, with much good will it is possible to suggest, that of the certainly destroyed sites, more of them fell during EHII:D than during any other subphase of either EHII or EHIII.

An issue which touches upon the same problem as that discussed above, but in another form, is whether gaps exist in the post-EHII habitation of excavated sites. In the cases of Tsoungiza in Corinthia, Ayios Dhimitrios in Elis and Ayios Kosmas in Attica, a subsequent period of abandonment decided the matter in favour of interpreting these sites as "destroyed" even though the extent of these alleged destruction layers was quite limited. Periods of abandonment can be suggested whenever a certain type of pottery is lacking at a site, but this is a type of negative evidence which is more prone to contain errors than positive data. As in the case of the dates of the destruction layers, we have also in this instance two sets of incommensurable data, i.e. sites which are correlated with the stratigraphy at Lerna and those which are not. I will primarily consider the former, because whenever it has been possible to suggest a more accurate date for the hiatus in question, the dividing line, or seemingly abrupt

1. Certain: Lerna, Tiryns, Ayios Dhimitrios and Ayios Kosmas. Possible: Voidokoilia and Thebes. Potential: Asine, Aigion, Kirrha and Perachora/Vouliagmeni.

2. Certain: Tsoungiza. Possible: Zygouries. Potential: Aigion, Strephi, Asine, Kirrha, Tiryns and Perachora/Vouliagmeni.

3. None certain. Possible: Synoro. Potential: Kirrha, Tiryns, Zygouries, Tsoungiza and Perachora/Vouliagmeni.

4. None certain. Potential: Tiryns, Zygouries, Tsoungiza and Perachora/Vouliagmeni.

5. Certain: Berbati, Kolonna. Possible: Tsoungiza. Potential: Eutresis, Teichos Dymaion, Thebes and Orchomenos.

6. Probable: Korakou and Asea. Possible: New Museum in Olympia. Potential: Eutresis, Teichos Dymaion, Thebes and Orchomenos.

7. Certain: Tiryns. Possible: New Museum in Olympia. Potential: Eutresis, Teichos Dymaion, Thebes and Orchomenos.

break between EHII and EHIII or EHIII and MH, becomes more subdued (Fig.3). There are several examples of this phenomenon, of which I will mention a few.

The periods of abandonment during EHII documented at Synoro (EHII:B), at Tsoungiza (EHII:C) and possibly at Zygouries (EHII:C) make the break at EHII:D less obvious. The same is true for the EHIII period when Zygouries, Tsoungiza and Prosymna in Argolido-Corinthia and possibly also the New Museum site at Olympia in Elis, Thorikos and Raphina in Attica, seem to have experienced periods of abandonment sometime after an early phase of EHIII until the beginning of MH, or else from late EHIII until late MH. In sum, the evidence from the sites where periods of abandonment have been dated through a correlation with the material found at Lerna supports the conclusion drawn previously from the destroyed settlement sites, namely that there is no longer a clear-cut break between EHII and EHIII, nor between EHIII and MH.

Some remarks will be made about the excavated EH sites which might have been continuously inhabited in EHII-MH, and which lack clear signs of destruction layers and/or gaps in their occupational history, as they possibly could counterbalance the hypothesis of dramatic breaks towards the end of EH. These sites are 20 in all; six others might belong to this group, but are marred by the fact that only some of the pottery has been found stratified in excavations, while the rest was found on the surface. One site of the latter category is Phlius in Corinthia. Phlius has usually been regarded as abandoned after EHII, as Blegen in his excavation of the site found plenty of EHII material but nothing later. However, in an intensive survey carried out recently at Phlius, one definite EHIII sherd and more than one definite MH sherd were found. I would argue that the EHIII sherd probably can be used to show that the site was inhabited during EHIII, considering that this is a chronological period for which we must lower our demands regarding frequency of finds. It is less certain if the traces of the MH period should be interpreted in the same way.

Lithares in Boiotia belongs to the 20 sites which I have considered to be continuously inhabited during the EHII-MH period, even though the excavator suggested that the site had been either destroyed or abandoned at the end of EHII. But, as in the cases of the excavated sites said to have been destroyed at the "end" of the EHII period (e.g. Synoro, Perachora/Vouliagmeni and Kirrha), the excavator of Lithares might have been influenced by the results from Lerna and the catastrophe theory conceived by Caskey. I reached this conclusion because no tangible evidence that the site was destroyed has been published; on the contrary, the excavator

explicitly stated that no ash-layers were found. Furthermore, the excavator disregards the handful of EHIII sherds found at the site in a way that I believe is erroneous, in the light of what we know of this "low-visibility phase". Manika on Euboia likewise belongs to the 20 continuously inhabited sites, but differs from Lithares in that the excavator suggested that the site "contracted" during the EHIII period. Once again I suspect that this might be the result of a preconceived idea about a horizon of disturbances after EHII. Both Lithares and Manika have to be published in more detail before we can make a more secure interpretation.

However, we have to end on a negative note, because as the material from these 26 sites (20+6) has not yet been conclusively correlated with the stratigraphy at Lerna, it is not possible to exclude the alternative that temporary periods of abandonment existed at these sites, just as they have been shown to exist at e.g. Ayios Dhimitrios in Elis and Tsoungiza in Corinthia. Thus, their weight as evidence of continuity between EHII and MH remains limited. We have so far discussed both positive and negative stratigraphical data recorded in excavations, and the main conclusion is that, once a more exact date has been suggested for either a destruction or a period of abandonment, we find little support in this material for the hypothesis of two synchronous waves of foreigners arriving in the area at the end of EHII and then again at the end of EHIII.

But in the methodological remarks made in Chapter 2, I argued that roughly synchronous destruction layers are no prerequisite for an invasion to have occurred, because if dramatic breaks are documented in a large area at about the same time in architecture, in artefacts and in burial customs, it is possible to suggest that an invasion occurred after all, despite the lack of previous destruction layers (if destruction layers were present more or less synchronously in a region, this could mean unstable and turbulent times, nothing more). In order to analyze whether such an alleged break is seen within these three general features, the datings and possible areas of origin for the apsidal buildings, the "Lefkandi I" assemblage, Light-on-Dark ware, Fine Gray-burnished ware, Finely Incised and/or Impressed ware, terracotta anchors, stone shaft-hole hammer-axes, tumuli and intramural burials, have been discussed in detail. Are these features "foreign" and, if they are, from where did they emanate?

First of all, we know that a dramatic break in architecture was documented at Lerna, where no apsidal houses had been found prior to the burning of the "House of the Tiles" in EHII:D. A closer look at previously excavated material in the region, as well as at new finds in the Peloponnese, shows that this type of architecture was present in the Argolid

before the destruction of the "House of the Tiles" at Lerna. Thus, this feature is not "new" and "intrusive" in Argolido-Corinthia during EHIII. It might on the other hand be a "new" influence during EHII, perhaps reaching the Peloponnese and east-central Greece from Thessaly, Macedonia and further north.

Caskey inferred, from the burial data collected at Lerna, that new living conditions existed in the Peloponnese and central Greece, reflected by a large amount of MH intramural burials, and that occasionally such tombs had appeared already during the EHIII period when they were thought to be reserved for children and infants. However, a scrutiny of older excavation reports, taken together with more recent finds, gives another picture of the burial customs towards the end of EH. (1) Intramural burials are found in the area already from EHII. (2) Intramural burials were not used exclusively for children, not even during the EHII period. (3) There is no clear connection between the appearance of intramural burials and a previous destruction layer, except possibly at Lerna.

Thus, we have seen how two of the allegedly "new" features, apsidal buildings and intramural burials, have turned out not to be "new" features at all. Concerning the enigmatic terracotta anchors, Caskey initially used these as another strand of evidence that an invasion had occurred in the Peloponnese at the end of EHII. Later he accepted that EHII examples also had been found, and consequently he changed the flow of this object, suggesting that it originated in the Peloponnese from where it spread northwards. However, the earliest terracotta anchors are found in central Greece, in Boiotia at Magoula Balomenou near Chaeronea (Neolithic) and at Eutresis (EHI). Thus, Caskey's reversed direction of this type of artefact (tool or idol — no one has come up with a convincing solution to its function) from the Peloponnese to central Greece cannot be supported. One might propose, rather boldly, that this type of object originated in Boiotia from where it spread in all directions.

The stone shaft-hole hammer-axes are more exclusive than the anchors and occur later in the study area than these, meaning that their greatest popularity occurred during EHIII-MH, rather than EHII-EHIII. Earlier examples have been found in Phocis at Kirrha (EHII) and then further to the north in Thessaly, Macedonia and the NE Aegean, from where they might have originated sometime during the Neolithic period. As the amount of EHIII shaft-hole hammer-axes is so small in the Peloponnese (8 in Lerna, 1-2 in Asine and 2 in Asea), it does not seem reasonable to link the appearance of these with a postulated invasion, at least not at the end

of EHII. The same is probably true of the next "new" feature which we will discuss.

By identifying a particular type of tumulus, the "ritual tumulus" which deviates in date and function from the more common burial tumuli appearing especially during MH, I have ended up with two different features to pursue as possible "foreign" influences. Regarding the "ritual tumulus", the type found at Lerna, Olympia/Altis and Thebes, this seems to be a late EHII feature which might find a Late (Final) Neolithic prototype at Ayia Sophia in Thessaly. Thus, as in the case of the apsidal buildings and stone shaft-hole hammer-axes, these tumuli seem to suggest northern influences in the study area. Taken together, these three northern elements appear in the south at different periods, spanning EHII-MH, and never involve large numbers. The burial tumuli will be discussed below in connection with the Finely Incised and/or Impressed ware.

In what respect did the ceramic repertory exhibit "drastic" breaks in an otherwise continuous and natural development? It has been suggested that a certain group of vessels, named the "Lefkandi I" assemblage, constitutes a clear break in the ceramic development towards the end of EHII. That this assemblage originated in W Anatolia (possibly SW) seems clear, and that it initially reached Euboia, subsequently dispersing on a westerly route to Boiotia and along a southern route to Attica and Kolonna in Aigina, should not be doubted. To equate a new group of ceramics with a population movement can, when dealing with prehistory, never be more than an *assumption*. However, it is assumed that at least Lefkandi on Euboia received some kind of population influx (perhaps a few families, being responsible for the establishment of Phase 1 at Lefkandi) sometime during EHII:D. The low frequency of "Lefkandi I" features in the Peloponnese suggests that this area was not reached by these new influences, at least not in the initial stage or form.

At a slightly later stage, another clear break in the ceramic development is seen with the appearance of Fine Gray-burnished ware (the predecessor of MH Gray Minyan). It is suggested that the technological skill to make this complicated type of pottery was brought along by the same "movement" responsible for the diffusion of the "Lefkandi I" assemblage. Fine Gray-burnished ware has been found at several Peloponnesian sites, and it is suggested here that this "new" ware reached the Peloponnese via Kolonna on Aigina, following the same route as the "Lefkandi I" assemblage, and not via Boiotia as hardly anything of this type of ware seems to have been found in central Greece. This scheme of events would fit the

hypothesis (Rutter 1983a) that some of the type-shapes in Fine Gray-burnished ware emanated from "Lefkandi I" vessel shapes.

Thus, two different types of ceramic evidence indicate that "new" influences reached east-central Greece during late EHII, and the Peloponnese at the beginning of EHIII, possibly originating in SW Anatolia. Another ware has likewise been suggested to be "foreign", this time only affecting central Greece, and that is the Light-on-Dark ware which is believed to be of NE Aegean origin (Rutter 1988). There is no clear case in central Greece where the introduction of this ware can be related to a destruction layer, except at Thebes, but the amount of Light-on-Dark pottery found at Thebes remains largely unknown.

The appearance of Finely Incised and/or Impressed ware of EHIII date in the NW Peloponnese, especially Olympia in Elis, can possibly be connected with the introduction of burial tumuli to the area, even though only one or two such tumuli of EHIII date are found in this area (at Olympia/new Museum site). Anyway it seems to be fairly clear that these influences originated further north in the NW Balkans. The burial tumuli do not seem to spread in any greater numbers into the study area until some time during MH.

To sum up, intramural burials were not brought to the area at the beginning of EHIII by an invading hoard of "foreigners". Terracotta anchors possibly originated in Boiotia from where they spread in all directions at the beginning of EHII. In the course of EHII apsidal buildings and "ritual" tumuli reached the Peloponnese from the north, the apsidal buildings possibly via Thessaly and Macedonia from further north, whereas the "ritual" tumuli, of which we only know four examples, might originate in Thessaly. Furthermore, it is suggested that SW Anatolia at the end of EHII and the beginning of EHIII contributed with new ceramic features, which reached Euboia via the Cyclades. These impulses, meaning the "Lefkandi I" assemblage and Fine Gray-burnished ware, eventually reached the Peloponnese at the beginning of EHIII, via Attica and especially Kolonna on Aigina (Boiotia probably did not contribute to such a large degree as previously thought to the transmission of these new ceramic impulses to the Peloponnese). Finally, from an early stage of EHIII onwards, Finely Incised and/or Impressed pottery and burial tumuli reached the NW Peloponnese probably from Dalmatia and Albania, via Leucas and Ithaka, whereas the EHIII Light-on-Dark variety of Pattern-painted ware possibly originated in the NE Aegean from where it was transmitted to central Greece roughly at the same time as the two previously mentioned features reached the Peloponnese.

Thus, it is shown that "new" features and influences are seen in the study area, coming from all directions and throughout the entire EHII-MH period at a steady pace. In my opinion these "new" features are signs of continuous contacts during the EHII-MH period northwards with Thessaly and Macedonia, eastwards with the Cyclades and West Anatolia, and to the northwest with Albania and Dalmatia. Further signs of contacts and influences during the EH-MH period between the study area and adjacent areas have not been considered here because they were not connected with the destruction layer at Lerna.

Looking at how the "new" features relate to individual "destruction layers" in the area, it is only in the case of Lerna that such a connection can be supported, which makes it understandable that Caskey suggested that an invasion had taken place. But that this would have affected the entire Argolido-Corinthia cannot be supported in the light of the data presented in this study. What happened at Lerna seems to be a local phenomenon (it might fit the picture of neighbouring fights between "peer polities"; see Wiencke 1989), which has unjustly influenced much later scholarly work, and possibly emanated from the old belief in the "coming of the Greeks". This theory should in my opinion be laid to rest, at least in its traditional form.

Now we might ask, if the criteria discussed above do not imply an invasion, what actually happened at the end of EHII, and what do we know about the subsequent EHIII period? Overall, I think that we have tended to look too much at discontinuities and too little at the continuity between EHII and EHIII. A short sketch of the EHIII period drawing on survey results and environmental data will be made, but I must leave it to others to fill in the details concerning the material culture of EHIII.

As the extensive survey results have been shown to be impaired by methodological drawbacks which make their value somewhat dubious, I will only make a short comment on these. The temporal distribution of the extensively surveyed regions (Figs.6-7) showed two major patterns: in most regions the dearth of EHIII material is obvious, while a "recovery" in number of sites occurred during MH. Another pattern can be inferred from the data collected in Boiotia (possibly also Phocis andEuboia) where the drop in site numbers during EHIII is less accentuated. However, when the excavated sites in each region are added, EHIII material has been documented in every geographical region, except Messenia in the Peloponnese. At a first glance it may be suspected that the EHIII material has been overlooked in extensive surveys, or else that it has been the major sites

with continuous habitation which have been excavated. In order to check this statement, we will look at the results from some intensive surveys.

The temporal distribution of the sites found by the survey team in the southern Argolid (Halieis is excavated but unpublished and therefore not included in these figures), the Berbati-Limnes area (including one excavated site) and the Karystos Bay area in Euboia was: 38 EHII sites, 7 EHIII sites and 12 MH sites. These numbers seem to corroborate the usual picture of a dramatic drop in the amount of sites from EHII to EHIII with a subsequent recovery during MH. In regard to this temporal distribution, a methodological observation was made which gave as a result that, when the estimated average duration of each period was correlated with these site numbers, there is a steady decrease per century in the numbers of settlements from the beginning of EHII to the end of MH. Thus, the "dramatic drop " from EHII to EHIII seems to be less dramatic and there is not a "recovery" during the MH period, but rather a continuous decline.

Another methodological aspect, this time widely discussed, is whether a nucleated or dispersed settlement pattern can be inferred from the survey data. By nucleation I mean that one site grew partly at the expense of others which were abandoned or decreased in size. A nucleated pattern could plausibly be responsible for the drop in site numbers during EHIII, if it can be shown that the EHIII sites were much larger than the previous EHII sites. This could mean that more or less the same amount of people lived in the area despite the decreased number of sites.

Of methodological concern is also the realization that EHIII pottery tends to be underrepresented because of the short duration and low site density of the period. However, even if we lower the demands of EHIII sherd frequency, the scant evidence of EHIII in the southern Argolid does not indicate that large EHIII sites existed into which the population agglomerated. The same is probably true in the Berbati valley, where only one site existed during the EHIII-MH period.[8] The Mastos in the Berbati valley seems to confirm the suggestion made above, namely that EHIII material tends to be found whenever a site is excavated, because it is the major sites which usually are excavated. In the Karystos Bay area in Euboia, the results indicate that the same amount of people could very well have inhabited the area throughout the EHII-MH period, as there was no change in number of sites from EHII to EHIII and the sole MH site

8. As the Mastos in the Berbati valley was not included in the survey permit, we cannot exclude the possibility that this site, showing a total nucleation during the EHIII-MH periods, was responsible for the lack of EHIII-MH material in the rest of the area.

was considered to be so large that it could reflect a nucleation rather than a drop in population.

Returning for a moment to the EHII period, in the two Argive regions we have signs of evolving hierarchical patterns where a full continuum of site sizes existed. This pattern forms a sharp contrast to the subsequent EHIII period discussed above. We saw then that a total nucleation had occurred at the Mastos in the Berbati valley: the hierarchical pattern had ceased to exist and presumably the number of people had decreased. In the southern Argolid, the habitation of at least four sites continued into the EHIII period, but the limited size of these (based on the assumption that the sherd amount reflects the site size) probably indicates that fewer people lived in the area. Thus a decreased population during EHIII can be taken for fairly certain in these two Argive regions.

Concerning the issue whether the locations of EHIII and MH sites reflected concern about security or not, I think that the southern Argolid data refute this for the EHIII-MH period because the majority of the sites during this period seem to be coastal (as the Berbati valley is inland, this aspect cannot be evaluated). The Karystos Bay evidence in Euboia might, on the other hand, suggest that the location of the MH site was chosen for security reasons. Overall, the intensive survey results discussed in this thesis have above all shown that different regions exhibit different settlement patterns[9], which means that the prehistory of each region probably also differed. I think that this point will be amply shown once more intensive survey data are published.

In sum, we have two limited regions in Argolis which probably show that the population decreased during EHIII, but there were no signs that this period was more dangerous or turbulent. The southernmost part of Euboia, on the other hand, might have been more vulnerable and it is possible to interpret the data from here as a sign that the population moved to a more sheltered location during MH.

The environmental data can be used to support different scenarios of the EHIII period. Catastrophic summer rains could be the cause behind the Pikrodafni alluvium documented in the Argolid during EHII:C-D. On the other hand, drier climate could also be responsible for this type of alluviation, and this is furthermore supported by a change in avian fauna documented at Lerna, where birds confined to a drier climate appeared during EHIII. Thus, we have two options, totally different from each

9. Other examples of this have been shown by the intensive surveys of Melos (Renfrew and Wagstaff 1982) and Keos (Cherry, Davis and Mantzourani 1990).

other, meaning that the climate changed to a drier or a wetter period during the end of EHII (at least in Argolis). Other possible reasons behind this soil erosion could be an increased pressure on the more marginal lands in the hills, supposedly spurred by an increased population during EHII. The result, no matter what the cause behind this erosion might have been, can possibly be connected with an increased nomadism during EHIII as suggested by Rutter (1988). Moreover, it might be possible to tie these changes to the slight increase in number of destroyed sites during EHII:D.

However, the course of events seems to be somewhat different in central Greece. Lack of geomorphological data from this region prevents us from drawing a similarly detailed picture as in Argolis, but the survey data available from Boiotia, Phocis and Euboia indicate, at least, less dramatic changes of the settlement pattern in these areas towards the end of EH.

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The study area

Argolid (incl. Spetses)
A1 Lerna
A2 Tiryns
A3 Kephalari
A4 Argos
A5 Mycenae
A6 Berbati
A7 Prosymna
A8 Dendra
A9 Midea (& Kiafa)
A10 Kazarma
A11 Asine (& Barbouna)
A12 Synoro
A13 Kandia
A14 Iria
A15 Epidauros
A16 Ayia Marina, Spetses

Corinthia
B1 Zygouries
B2 Tsoungiza
B3 Aetopetra
B4 Cheliotoumylos
B5 Ayios Gerasimos
B6 Ancient Corinth
B7 Gonia (& Yiriza)
B8 Korakou
B9 Kalamaki
B10 Isthmia
B11 Perachora/ Heraion
B12 Perachora/ Vouliagmeni
B13 Phlius

Achaia
C1 Aigion
C2 Teichos Dymaion

Elis
D1 Elis
D2 Kostoureika
D3 Strephi
D4 Olympia/ New Museum
D5 Olympia/Altis
D6 Makrysia
D7 Kleidi
D8 Ayios Dhimitrios

Arcadia
E1 Asea
E2 Chersonisi
E3 Ayioryitika (& Steno)

Messenia
F1 Pylos
F2 Papoulia
F3 Voidokoilia
F4 The Cave of Nestor
F5 Lambaina
F6 Akovitika
F7 Routsi

Laconia
G1 Kouphovouno
G2 Amyklaion
G3 Ayios Stephanos
G4 Asteri

Attica (incl. Megarid and Aigina)
H1 Palaiokastro/ Megara
H2 Eleusis
H3 Athens
H4 Ayios Kosmas
H5 Kolonna
H6 Thorikos
H7 Brauron
H8 Askitario
H9 Raphina
H10 Nea Makri
H11 Tsepi
H12 Plasi
H13 Koropi

Boiotia
i1 Vlicha
i2 Drosia
i3 Dramesi
i4 Hypaton
i5 Lithares
i6 Thebes
i7 Eutresis
i8 Orchomenos
i9 Khostia

Euboia
J1 Manika
J2 Lefkandi
J3 Eretria
J4 Amarynthos
J5 Mourteri
J6 Oreoi

Phocis
K1 Distomon
K2 Ayia Marina
K3 Drachmani
K4 Lilaia
K5 Kirrha
K6 The Corycian Cave
K7 Médéon
K8 Apsiphia Island

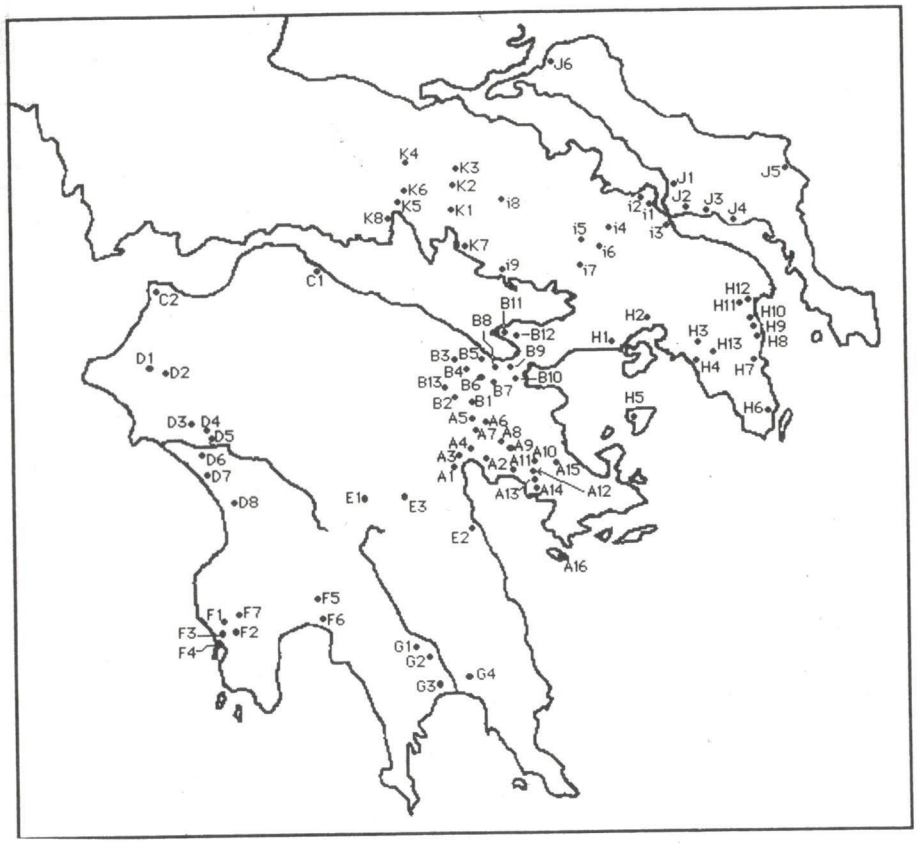

Fig.1

Map of the study area showing the sites included in the catalogue.

Sites with late EH "destruction" layers				
Region	**EHII**	**Extent**	**EHIII**	**Extent**
Argolid				
Lerna	D	T. 0.7-1 x ca.300 m^2		
Tiryns:				
Oberburg	X D?	> 28 m in diam.		
Mittelburg	?	unrecorded		
Old Unterburg	End	T. 0.4 x ca.2 m^2		
New Unterburg	XX D	T.? x 240 m^2	1	T.? x 190 m^2
Lower Town	?	numerous disc. areas		
Berbati			3	T. 0.2 x 825 m^2
Asine	C-D	T. 0.2 x 4 m^2		
Synoro	early B?	unrecorded		
Corinthia				
Zygouries	X C?	T.? > 450 m^2		
Tsoungiza	X early C	T. 0.3 x 12 m^2	3?	"entire area"
Korakou			2	"when MH on EH"
Perachora/V.	X End	unrecorded		
Achaia				
Aigion	C? D?	unrecorded		
Teichos Dymaion			End	unrecorded
Elis				
Strephi	C? D	T. 0.15-0.6 x ?		
Olympia/N.M.			1-2?	unrecorded
Ayios Dhimitrios	D	T.? x 12 m^2		
Arcadia				
Asea			2	T. 0.2 x 1200 m^2
Messenia				
Voidokoilia	D?	T. ? x ca.900 m^2		
Attica				
Ayios Kosmas	D	T. 0.4 x 3 trenches		
Kolonna			3	T. 0.3 x 2400 m^2
Boiotia				
Drosia	?		?	

Sites with late EH "destruction" layers				
Region	**EHII**	**Extent**	**EHIII**	**Extent**
Boiotia				
Thebes	D	numerous disc. areas	End?	numerous disc. areas
Eutresis			End	T. 0.2-0.25 x 130 m^2
Orchomenos			End?	numerous disc. areas
Phocis				
Lilaia	?	T. 1.25 x 4 m^2		
Kirrha	End	T. 1 x 3 trenches		

Fig. 2

A-D = subphases of the EHII period as defined at Lerna in the Argolid.
1-3 = subphases of the EHIII period as defined at Lerna in the Argolid.
X = evidence of earlier destruction(s) at the site, but of unknown subphase.
T = thickness of the destruction layer, usually the average thickness in meters.

Sites with gaps in post-EHII material			
Region	**EHII**	**EHIII**	**MH**
Argolid			
Berbati		H. during EHIII:1 ?	X
Prosymna	X	H. late EHIII until	late MH
Synoro	EHII:B/?	n.i.	X
Ayia Marina	X	n.i.	n.i.
Corinthia			
Zygouries	EHII:C/H. D until	EHIII:2; H. EHIII:3	until late MH
Tsoungiza	EHII:C/H. D until	EHIII:2; /? H. EHIII:3	until late MH
Ancient Corinth	X	n.i.	n.i.
Perachora/V.	X/	n.i.	n.i.
Elis			
Strephi	EHII:D/ (flood)	n.i.	n.i.
Olympia/N.M.	X	EHIII:2/? H.	X
Olympia/Altis	X	X	n.i.?
Ayios Dhimitrios	EHII:D/	n.i.	X
Messenia			
Pylos	X	n.i.	X
Voidokoilia	D?/	n.i.	X
Akovitika	X (flood?)	n.i.	X
Laconia			
Kouphovouno	X	n.i.	X
Ayios Stephanos	X	n.i.	X
Attica			
Rouf	EHII:C?	n.i.	n.i.
Ayios Kosmas	D/	n.i.	X
Thorikos	X	early EHIII - H.	n.i.
Askitario	X	n.i.	n.i.
Raphina	X	early EHIII - H.?	X
Euboia			
Mourteri	X	n.i.	n.i.

Fig. 3

The sites included here are published in some detail.
A-D = subphases of the EHII period as defined at Lerna in the Argolid.
1-3 = subphases of the EHIII period as defined at Lerna in the Argolid.
H. = hiatus, / = a destruction layer, /? = a possible destruction layer.
n.i. = not identified, X = stratified pottery.

Sites with gaps in post-EHII material			
Region	**EHII**	**EHIII**	**MH**
Argolid			
Argos	X	n.i.	X
Kazarma	X	n.i.	X
Epidauros	X	n.i.	X
Corinthia			
Perachora/Heraion	X	n.i.	n.i.
Achaia			
Aigion	X	n.i.?	X
Elis			
Kostoureika	X	n.i.	n.i.
Makrysia	X?	n.i.	X
Arcadia			
Chersonisi	X	n.i.	X
Ayioryitika	X	n.i.	n.i.
Messenia			
Papoulia	X	n.i.	X
Lambaina	X	n.i.	n.i.
Routsi	X	n.i.	X
Laconia			
Asteri	X	n.i.	X
Attica			
Palaiokastro/Megara	X	n.i.	X
Nea Makri	X	X	n.i.
Plasi	X?	n.i.	X
Boiotia			
Vlicha	X	n.i.	X
Hypaton	X	n.i.	X
Euboia			
Oreoi	X	n.i.	X
Phocis			
Distomon	X	n.i.	n.i.
Lilaia	X	n.i.?	X
Apsiphia Island	X	n.i.	n.i.

Fig.4

Due to stratigraphical uncertainties the sites enumerated above carry less weigh
as evidence of abandonment.
n.i. = not identified, X = pottery material found.

Sites with possibly continuous habitation in EHII-MH

Argolid
Kephalari
Mycenae
Dendra
Midea
Kandia
Iria ?
Corinthia
Aetopetra
Ayios Gerasimos ?
Cheliotoumylos ?
Gonia
Phlius ?
Elis
Kleidi ?
Laconia
Amyklaion

Attica
Eleusis
Athens
Brauron
Boiotia
Dramesi ?
Lithares
Khostia
Euboia
Manika
Lefkandi
Eretria
Amarynthos
Phocis
Ayia Marina
Drachmani-Piperi
Medeon

Fig. 5

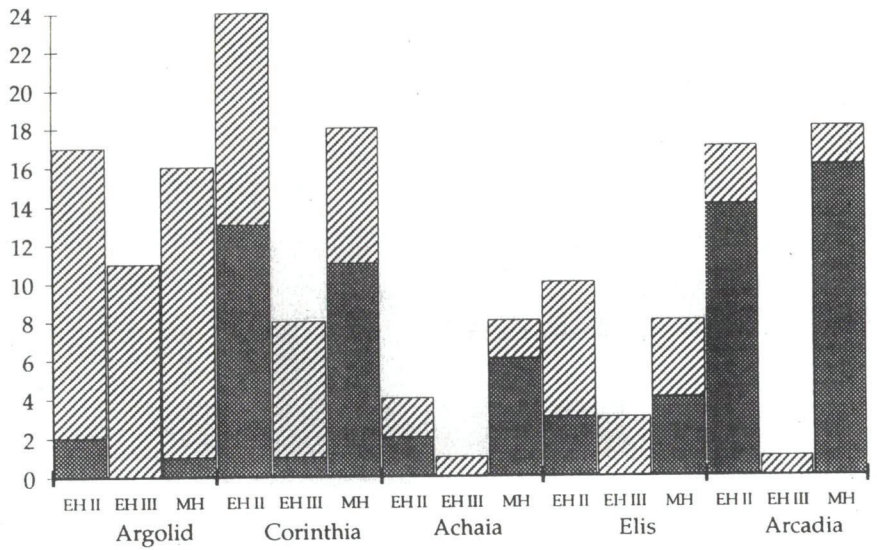

Fig.6

The temporal distribution of extensively surveyed regions (shaded) taken together with the excavated settlement sites (diagonals).

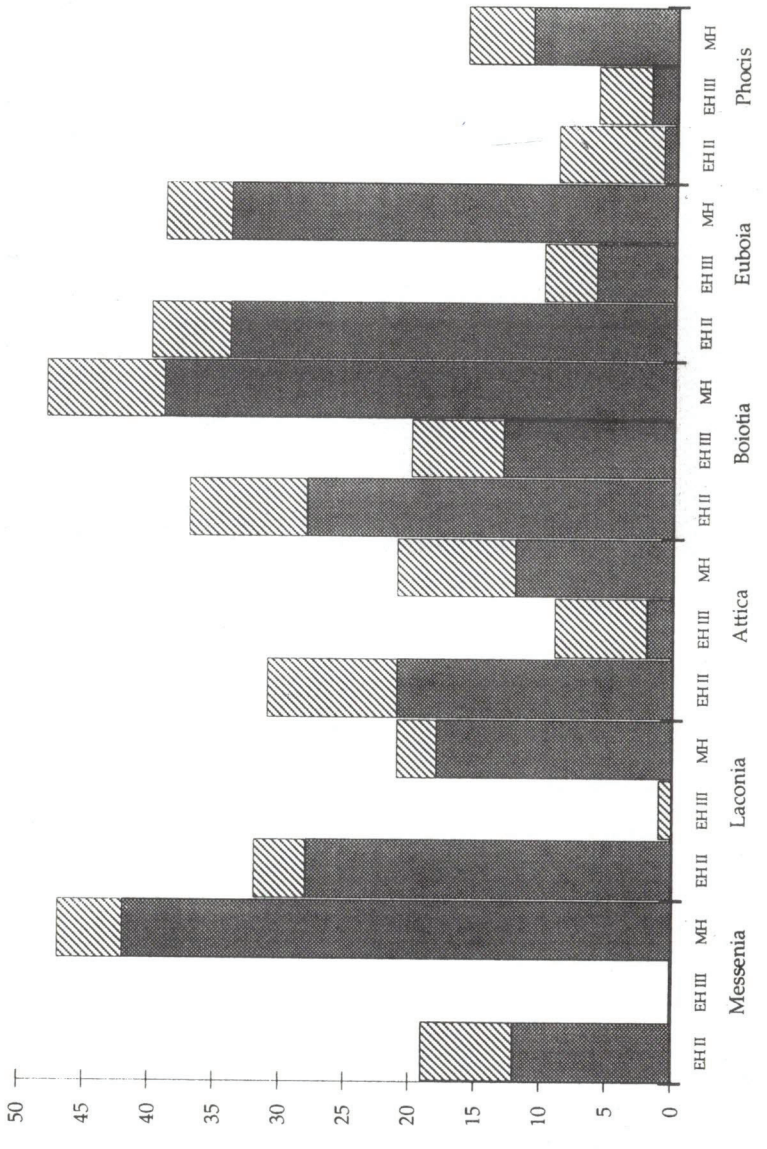

Fig.7

The temporal distribution of extensively surveyed regions (shaded) taken together with the excavated settlement sites (diagonals).

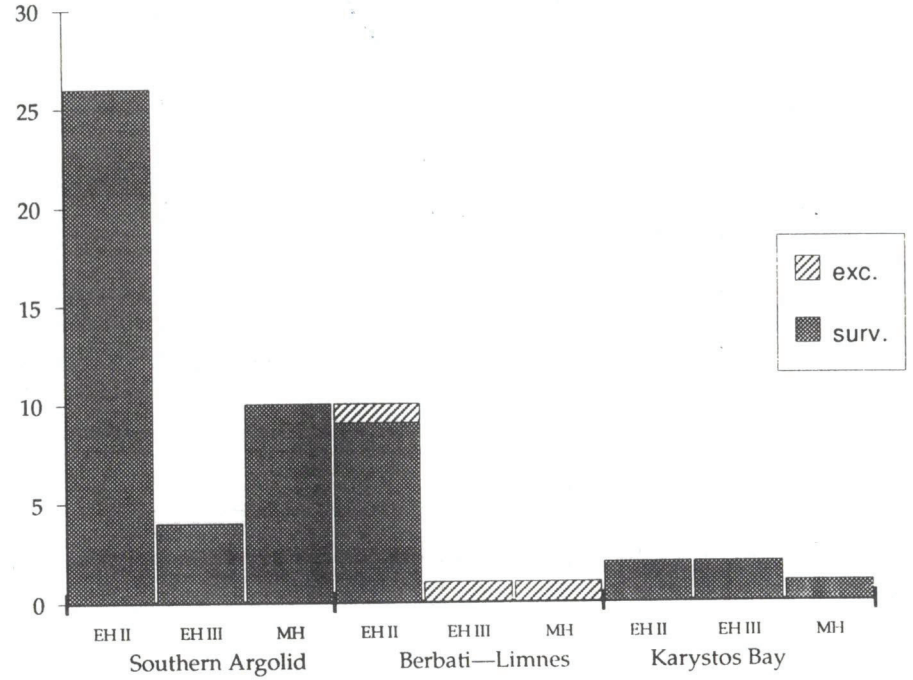

Fig.8

The temporal distribution of intensively surveyed regions (shaded) taken together with the excavated settlement sites (diagonals).

Apsidal buildings				
Region	**EHII**	**EHIII**	**EH**	**MH**
Argolid				
Lerna	/	11		> 3
Tiryns: Oberburg	> 2 /			
Tiryns: New Unterburg	/	1 / 6		
Argos			1?	
Asine	1 + 1 TPQ /?			
Kandia		1?		
Corinthia				
Zygouries				1 ?
Tsoungiza	1 /	> 1 /?		
Korakou			1	2
Achaia				
Aigion	1 /			
Elis				
Olympia/N.M.		2 + 2? /?		
Olympia/Altis		3 + 2		
Arcadia				
Asea		/		1
Messenia				
Pylos	2?			
Malthi*				> 10
Laconia				
Ayios Stephanos				1
Kouphovouno	1			

Apsidal buildings				
Region	**EHII**	**EHIII**	**EH**	**MH**
Attica				
Athens	2			
Eleusis				2
Askitario			1	
Euboia				
Manika	2 + 1 TPQ?			
Eretria				> 1
Mourteri	1			
Linovrochi*	1 TAQ?			
Boiotia				
Thebes	2 + 1? /			
Eutresis		/		2 + 1?
Krisa*				> 4
Orchomenos	2	2	7	
Total	15-(21)	28-(33)	9-(10)	26-(28)

Fig. 9

An asterisk indicates sites which are not included in the catalogue.
TPQ = *terminus post quem*, TAQ = *terminus ante quem*, / = destruction layer.
Numbers within parentheses indicate the maximum amount of apsidal buildings, including the uncertain ones and the ones with TPQ or TAQ dates.

The "Lefkandi I" pottery assemblage		
Region	**EHII**	**EHIII**
Argolid		
Lerna	/	X
Tiryns	/	X ?
Messenia		
Akovitika	X ?	
Attica		
Kolonna	X	/ X
Thorikos	X	
Raphina	X	
Koropi	X	
Euboia		
Manika	X	
Lefkandi	X	
Eretria	X ?	
Amarynthos	X ?	
Boiotia		
Thebes	X /	/
Eutresis	X	/
Orchomenos	X	/ ?
Phocis		
Ayia Marina	X ?	or X ?

Fig.10

/ = a destruction layer.

Light-on-Dark pottery of EHIII date		
Region	**EHII**	**EHIII**
Argolid		
Lerna	/	X
Tiryns	/	X
Mycenae		X
Berbati		X /
Prosymna		X H.
Asine	/	X
Corinthia		
Zygouries	/	H. X
Tsoungiza	/	H. X /
Cheliotoumylos		X
Gonia		X
Korakou		X /
Achaia		
Teichos Dymaion		X /
Attica		
Eleusis		X
Athens		X
Kolonna		X / X
Boiotia		
Thebes	/	X /
Eutresis		X /
Orchomenos		X /

Light-on-Dark pottery of EHIII date		
Region	**EHII**	**EHIII**
Euboia		
Manika		X
Lefkandi		X
Phocis		
Ayia Marina		X
Drachmani-Piperis		X
Kirrha	/	X

Fig.11

/ = a destruction layer.
H. = a hiatus in habitation.

Fine Gray-burnished ware		
Region	**EHII**	**EHIII**
Argolid		
Lerna	/	X (1-3)
Tiryns:		
New Unterburg	/	X (1) / X (2-3)
Lower Town		X (2-3)
Berbati		H. X (2-3) /
Asine	/	X
Corinthia		
Tsoungiza	/ H.	until X (2-3) /?
Gonia		X (1-3)
Elis		
Olympia/N.M.		X (1-2)
Olympia/Altis		X (1)
Attica		
Kolonna		X (3) / X (3)
Boiotia		
Eutresis		X /
Euboia		
Lefkandi		X (1-3)

Fig.12

Numbers within parentheses indicate subphase(s) of EHIII as defined at Lern
in the Argolid.
/ = a destruction layer, H. = a hiatus in habitation.

Finely Incised and/or Impressed ware		
Region	**EHII**	**EHIII**
Argolid		
Lerna	/	X (1-3)
Tiryns: Lower Town	/	X
Mycenae		X
Prosymna		X (3)
Corinthia		
Zygouries	/	X (2)
Korakou		X (1-2)
Elis		
Olympia/N.M.		X (1-2)
Olympia/Altis		X (1)
Arcadia		
Asea		X (2)
Attica		
Kolonna		X (1-2) /

Fig.13

Numbers within parentheses indicate subphase(s) of EHIII as defined at Lerna in the Argolid.
/ = a destruction layer.

Terracotta anchors within the study area					
Region	**EHI**	**EHII**	**EHIII**	**EH**	**MH**
Argolid					
Lerna		/	9		2
Tiryns: Unterburg		/ 1 /	1 /		
Berbati			2 /		
Asine		1			
Epidauros				X?	
Corinthia					
Tsoungiza		/ 4-5 /			
Cheliotoumylos		1			
Ancient Corinth		1			
Achaia					
Teichos Dymaion				2?	
Elis					
Olympia/N.M.			5		
Arcadia					
Asea				1?	
Messenia					
Nichoria*					X
Attica					
Kolonna			7 / 1		1
Raphina		1			
Koropi		1?			
Boiotia					
Lithares		6		4?	

Terracotta anchors within the study area					
Region	**EHI**	**EHII**	**EHIII**	**EH**	**MH**
Boiotia					
Thebes		2			
Eutresis	1	4	/		
Phocis					
Distomon		2 TAQ			
Kirrha		1 /			
Amphissa*				2	
Galaxidi*		2 TAQ			
Total	1-(5)	23-24 (28)	25	> 9	> 3

Fig.14

An asterisk indicates sites which are not included in the catalogue.
Numbers within parentheses indicate the maximum amount of terracotta anchors, including the ones with *terminus ante quem* dates (TAQ).
/ = a destruction layer.

Stone shaft-hole hammer-axes			
Region	EHII	EHIII	MH
Argolid			
Lerna	/	8	11
Asine	/	1-2	3-4
Arcadia			
Asea		2 /	2
Messenia			
Pylos			1
Malthi*			>10
Leuktras*			1?
Laconia			
Ayios Stephanos			1
Palaiopyrgi*			2?
Boiotia			
Eutresis		/	> 2
Lithares	1 TPQ?		
Euboia			
Manika	1?		
Phocis			
Kirrha	X /	X	X
Delphi*	prior to EH		
Total	> 1	> 11-12	> 30-34

Fig.15

An asterisk indicates sites which are not included in the catalogue.
/ = a destruction layer, TPQ = *terminus post quem*.

Tumuli			
Region	**EHII**	**EHIII**	**MH**
Argolid			
Lerna	/ 1 ritual TPQ		
Argos			1
Asine			1
Mycenae			2
Achaia			
Mirali*			2
Elis			
Olympia/Altis	1 ritual		
Olympia/N.M.		1 + 1?	
Makrysia			1
Samikon*			1
Mageira*			1
Kleidi			1
Messenia			
Voidokoilia	/		1
Papoulia			1
Koukirikou*			1
Kaminia*			1
Koukounara*			1
Karpophora*			1
Routsi			1

Tumuli			
Region	**EHII**	**EHIII**	**MH**
Attica			
Athens			1
Aphidna*			1
Vrana*			2
Thorikos			1
Euboia			
Kamarion*			1
Boiotia			
Thebes	1 ritual		
Phocis			
Drachmani			1
Total	2-3	1-2	24

Fig.16

An asterisk indicates sites which are not included in the catalogue.
TPQ = *terminus post quem*.

Intramural and extramural burials						
	EHII		EHIII		MH	
Region	**intram.**	**extram.**	**intram.**	**extram.**	**intram.**	**extram.**
Argolid						
Lerna			9c		211a+c	
Tiryns	1a?		2?		13a+c	
Argos					5a+c	
Berbati	[1a]				2	
Asine	2c+1c?				111a+c	36a+c
Mycenae						78-96
Prosymna						31
Corinthia						
Zygouries		4a			4c	5
Cheliotoumylos	[1a & c]					12-13
Aetopetra					1c	
Tsoungiza	1c					
Ancient Corinth		1+4?				
Gonia					1	
Korakou					2c	
Kalamaki		1*				
Isthmia		1*				
Perachora/V.		2				
Achaia						
Teichos Dymaion			1?			
Elis						
Elis		1*				

Intramural and extramural burials						
	EHII		EHIII		MH	
Region	**intram.**	**extram.**	**intram.**	**extram.**	**intram.**	**extram.**
Elis						
Olympia/Altis			5c			
Strephi	1a?+1?					
Arcadia						
Asea					29a+c	
Messenia						
Malthi					35a+c	
Laconia						
Ayios Stephanos	3c+10c? +2a+6a?				47	
Kouphovouno	1a+1a?+ 1c?					
Attica						
Eleusis					16a+c	36a+c
Ayios Kosmas		39				
Askitario	2c					
Raphina		1?				
Tsepi		22				
Euboia						
Manika		> 69				
Boiotia						
Thebes	1a+1?					
Eutresis	1c?				>55a+c	
Orchomenos					48a+c	

Intramural and extramural burials						
	EHII		EHIII		MH	
Region	**intram.**	**extram.**	**intram.**	**extram.**	**intram.**	**extram.**
Phocis						
Kirrha	1c				13a+c	
Ayia Marina			2a+1c			
Total	13-37	140-145	17-20		>593	198-217

Fig.17

Intramural burial = a grave found within the settlement, among the houses or under the floor of a house.
Extramural burial = a grave outside the main settlement area.
A bracket indicates graves which are not burials *per se*.
An asterisk indicates "assumed" extramural tombs.
a = adult, c = child or infant.

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